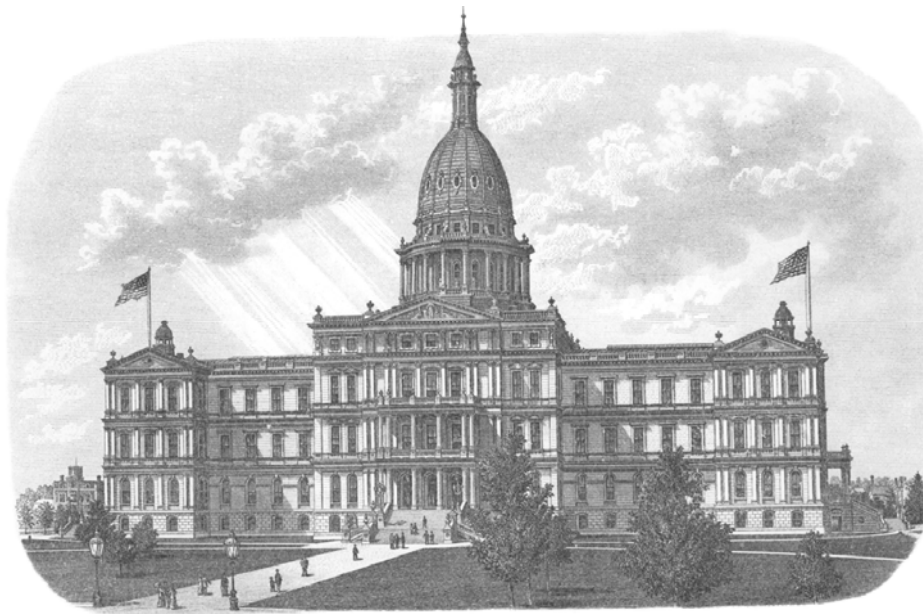


Michigan Register

Issue No. 7 – 2013 (Published May 1, 2013)



GRAPHIC IMAGES IN THE MICHIGAN REGISTER

COVER DRAWING

Michigan State Capitol:

This image, with flags flying to indicate that both chambers of the legislature are in session, may have originated as an etching based on a drawing or a photograph. The artist is unknown. The drawing predates the placement of the statue of Austin T. Blair on the capitol grounds in 1898.

(Michigan State Archives)

PAGE GRAPHICS

Capitol Dome:

The architectural rendering of the Michigan State Capitol's dome is the work of Elijah E. Myers, the building's renowned architect. Myers inked the rendering on linen in late 1871 or early 1872. Myers' fine draftsmanship, the hallmark of his work, is clearly evident.

Because of their size, few architectural renderings of the 19th century have survived. Michigan is fortunate that many of Myers' designs for the Capitol were found in the building's attic in the 1950's. As part of the state's 1987 sesquicentennial celebration, they were conserved and deposited in the Michigan State Archives.

(Michigan State Archives)

East Elevation of the Michigan State Capitol:

When Myers' drawings were discovered in the 1950's, this view of the Capitol – the one most familiar to Michigan citizens – was missing. During the building's recent restoration (1989-1992), this drawing was commissioned to recreate the architect's original rendering of the east (front) elevation.

(Michigan Capitol Committee)

Michigan Register

Published pursuant to § 24.208 of
The Michigan Compiled Laws



Issue No. 7— 2013

(This issue, published May 1, 2013, contains
documents filed from April 1, 2013 to April 15, 2013)

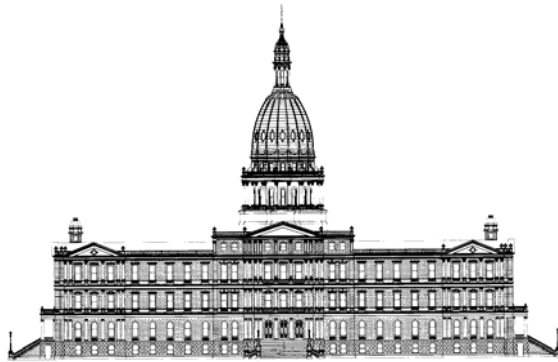
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Office of Regulatory Reinvention

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Steve Arwood, Director, Office of Regulatory Reinvention; **Deidre O’Berry**, Administrative Rules Specialist for Operations and Publications.

Rick Snyder, Governor



Brian Calley, Lieutenant Governor

PREFACE

PUBLICATION AND CONTENTS OF THE MICHIGAN REGISTER

The Office of Regulatory Reform publishes the *Michigan Register*.

While several statutory provisions address the publication and contents of the *Michigan Register*, two are of particular importance.

24.208 Michigan register; publication; cumulative index; contents; public subscription; fee; synopsis of proposed rule or guideline; transmitting copies to office of regulatory reform.

Sec. 8.

(1) The office of regulatory reform shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

- (a) Executive orders and executive reorganization orders.
 - (b) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills signed into law by the governor during the calendar year and the corresponding public act numbers.
 - (c) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills vetoed by the governor during the calendar year.
 - (d) Proposed administrative rules.
 - (e) Notices of public hearings on proposed administrative rules.
 - (f) Administrative rules filed with the secretary of state.
 - (g) Emergency rules filed with the secretary of state.
 - (h) Notice of proposed and adopted agency guidelines.
 - (i) Other official information considered necessary or appropriate by the office of regulatory reform.
 - (j) Attorney general opinions.
 - (k) All of the items listed in section 7(m) after final approval by the certificate of need commission under section 22215 of the public health code, 1978 PA 368, MCL 333.22215.
- (2) The office of regulatory reform shall publish a cumulative index for the Michigan register.
- (3) The Michigan register shall be available for public subscription at a fee reasonably calculated to cover publication and distribution costs.
- (4) If publication of an agency's proposed rule or guideline or an item described in subsection (1)(k) would be unreasonably expensive or lengthy, the office of regulatory reform may publish a brief synopsis of the proposed rule or guideline or item described in subsection (1)(k), including information on how to obtain a complete copy of the proposed rule or guideline or item described in subsection (1)(k) from the agency at no cost.
- (5) An agency shall electronically transmit a copy of the proposed rules and notice of public hearing to the office of regulatory reform for publication in the Michigan register.

4.1203 Michigan register fund; creation; administration; expenditures; disposition of money received from sale of Michigan register and amounts paid by state agencies; use of fund; price of Michigan register; availability of text on internet; copyright or other proprietary interest; fee prohibited; definition.

Sec. 203.

- (1) The Michigan register fund is created in the state treasury and shall be administered by the office of regulatory reform. The fund shall be expended only as provided in this section.
- (2) The money received from the sale of the Michigan register, along with those amounts paid by state agencies pursuant to section 57 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.257, shall be deposited with the state treasurer and credited to the Michigan register fund.
- (3) The Michigan register fund shall be used to pay the costs of preparing, printing, and distributing the Michigan register.
- (4) The department of management and budget shall sell copies of the Michigan register at a price determined by the office of regulatory reform not to exceed the cost of preparation, printing, and distribution.
- (5) Notwithstanding section 204, beginning January 1, 2001, the office of regulatory reform shall make the text of the Michigan register available to the public on the internet.
- (6) The information described in subsection (5) that is maintained by the office of regulatory reform shall be made available in the shortest feasible time after the information is available. The information described in subsection (5) that is not maintained by the office of regulatory reform shall be made available in the shortest feasible time after it is made available to the office of regulatory reform.
- (7) Subsection (5) does not alter or relinquish any copyright or other proprietary interest or entitlement of this state relating to any of the information made available under subsection (5).
- (8) The office of regulatory reform shall not charge a fee for providing the Michigan register on the internet as provided in subsection (5).
- (9) As used in this section, "Michigan register" means that term as defined in section 5 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.205.

CITATION TO THE MICHIGAN REGISTER

The *Michigan Register* is cited by year and issue number. For example, 2001 MR 1 refers to the year of issue (2001) and the issue number (1).

CLOSING DATES AND PUBLICATION SCHEDULE

The deadlines for submitting documents to the Office of Regulatory Reinvention for publication in the *Michigan Register* are the first and fifteenth days of each calendar month, unless the submission day falls on a Saturday, Sunday, or legal holiday, in which event the deadline is extended to include the next day which is not a Saturday, Sunday, or legal holiday. Documents filed or received after 5:00 p.m. on the closing date of a filing period will appear in the succeeding issue of the *Michigan Register*.

The Office of Regulatory Reinvention is not responsible for the editing and proofreading of documents submitted for publication.

Documents submitted for publication should be delivered or mailed in an electronic format to the following address: MICHIGAN REGISTER, Office of Regulatory Reinvention, Romney Building – Fourth Floor, 111 S. Capitol Avenue, Lansing, MI 48933

RELATIONSHIP TO THE MICHIGAN ADMINISTRATIVE CODE

The *Michigan Administrative Code* (1979 edition), which contains all permanent administrative rules in effect as of December 1979, was, during the period 1980-83, updated each calendar quarter with the publication of a paperback supplement. An annual supplement contained those permanent rules, which had appeared in the 4 quarterly supplements covering that year.

Quarterly supplements to the Code were discontinued in January 1984, and replaced by the monthly publication of permanent rules and emergency rules in the *Michigan Register*. Annual supplements have included the full text of those permanent rules that appear in the twelve monthly issues of the *Register* during a given calendar year. Emergency rules published in an issue of the *Register* are noted in the annual supplement to the Code.

SUBSCRIPTIONS AND DISTRIBUTION

The *Michigan Register*, a publication of the State of Michigan, is available for public subscription at a cost of \$400.00 per year. Submit subscription requests to: Office of Regulatory Reinvention, Romney Building – Fourth Floor, 111 S. Capitol Avenue, Lansing, MI 48933. Checks Payable: State of Michigan. Any questions should be directed to the Office of Regulatory Reinvention (517) 335-8658.

INTERNET ACCESS

The *Michigan Register* can be viewed free of charge on the Internet web site of the Office of Regulatory Reinvention: www.michigan.gov/orr.

Issue 2000-3 and all subsequent editions of the *Michigan Register* can be viewed on the Office of Regulatory Reinvention Internet web site. The electronic version of the *Register* can be navigated using the blue highlighted links found in the Contents section. Clicking on a highlighted title will take the reader to related text, clicking on a highlighted header above the text will return the reader to the Contents section.

Steve Arwood, Director
Office of Regulatory Reinvention

2013 PUBLICATION SCHEDULE

Issue No.	Closing Date for Filing or Submission Of Documents (5 p.m.)	Publication Date
1	January 15, 2013	February 1, 2013
2	February 1, 2013	February 15, 2013
3	February 15, 2013	March 1, 2013
4	March 1, 2013	March 15, 2013
5	March 15, 2013	April 1, 2013
6	April 1, 2013	April 15, 2013
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ADMINISTRATIVE RULES
FILED WITH THE SECRETARY OF STATE

MCL 24.208 states in part:

“Sec. 8. (1) The Office of Regulatory Reinvention shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(f) Administrative rules filed with the secretary of state.”

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION SAFETY STANDARDS

Filed with the Secretary of State on April 2, 2013

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 19 and 21 of 1974 PA 154, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.40810, R 408.40818, R 408.40819, R 408.40820, R 408.40821, R 408.40822, R 408.40831, R 408.40833, R 408.40834, R 408.40836, R 408.40837, R 408.40840, and R 408.40841 of the Michigan Administrative Code are amended as follows:

PART 8. HANDLING AND STORAGE OF MATERIALS

R 408.40810 Adoption by reference of standards.

Rule 810. (1) The Compressed Gas Association Standard, P-1--2000, Safe Handling of Compressed Gases in Containers, ninth edition, is adopted by reference in these rules. The standard is available from the Compressed Gas Association, Inc., 4221 Walney Road, 5th Floor, Chantilly, VA, 20151-2923; telephone number: 703-788-2700 or via the internet at web-site: www.cganet.com at a cost as of the time of adoption of these rules of \$227.00 or it is available for review at the offices of the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909-8143.

(2) The following Michigan occupational safety and health standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at web-site: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost is 4 cents per page.

- (a) Part 1. General Rules, R 408.40101 et seq.
- (b) Part 7. Welding and Cutting, R 408.40701 et seq.
- (c) Part 10. Lifting and Digging Equipment, R 408.41001a et seq.
- (d) Part 13. Mobile Equipment, R 408.41301 et seq.
- (e) Part 18. Fire Protection and Prevention, R 408.41801 et seq.
- (f) Part 27. Blasting And Use of Explosives, R 408.42701 et seq.
- (g) Part 45. Fall Protection, R 408.44501 et seq.
- (h) Part 49. Slings, R 408.14901 et seq.

R 408.40818 General provisions; storage.

Rule 818. (1) All material shall be stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, falling, or collapse during storage or transit.

(a) Structural steel, poles, pipe, bar stock, and other cylindrical materials, unless racked, shall be stacked and blocked so as to prevent spreading or tilting.

(2) The maximum safe load limit in pounds per square foot of a floor or roof of a building shall be conspicuously posted in all storage areas, except a slab on grade. The maximum safe load limit shall not be exceeded.

(3) Storage areas, aisles, and passageways shall be kept free of the accumulation of materials that constitutes a hazard to the movement of material-handling equipment and employees. Such areas shall be kept in good repair.

(4) If a difference in road or work levels exists, ramps, grading, or blocking shall be provided to ensure the safe movement of material-handling equipment.

(5) A railcar, truck, or semitrailer shall be chocked or otherwise secured during loading and unloading if the movement of a railcar, truck, or trailer could create a hazard for the employee.

(6) While roofing work is being performed, materials and equipment shall not be stored within 6 feet (1.8 m) of a roof edge, unless guardrails are erected at the roof edge.

(7) Material stored inside buildings under construction shall not be placed within 6 feet of any hoistway or inside floor openings, nor within 10 feet of an exterior wall that does not extend above the top of the material stored.

(8) Noncompatible materials shall be segregated in storage.

(9) Storage areas shall be kept free from accumulation of materials that constitute hazards from tripping, fire, explosion, or pest harborage. Vegetation control shall be exercised when necessary.

(10) Materials shall not be stored on scaffolds or runways in excess of supplies needed for immediate operations.

(11) Portable and powered dockboards shall be strong enough to carry the load imposed on them.

(12) Portable dockboards shall be secured in position by being anchored and equipped with devices that will prevent slipping.

(13) Handholds, or other effective means, shall be provided on portable dockboards to permit safe handling.

(14) Positive protection shall be provided to prevent railroad cars from being moved while dockboards or bridge plates are in position.

R 408.40819 Storage of bagged material, brick, and block.

Rule 819. (1) Bagged material on a pallet shall be all of the following:

(a) Not more than 36 inches in height.

(b) Secured to prevent displacement from the pallet before moving.

(c) Stacked not more than 2 pallets high.

(d) Stacked by stepping back the layers and cross-keying the bags at least every 10 bags high.

(2) A loose brick or tile stack shall be all of the following:

(a) Tapered back 2 inches in every foot of height above 4 feet.

(b) Not exceed 6 feet in height.

(c) Cross-keyed at each 2-foot level.

(3) A loose block stack shall be all of the following:

(a) Not exceed 6 feet in height.

(b) Cross-keyed at each 3-foot level.

(4) Brick on a pallet shall be all of the following:

(a) Not more than 30 inches in height.

- (b) Secured to prevent displacement from the pallet before moving.
- (c) Stacked not more than 2 pallets high.
- (5) Block on a pallet shall be all of the following:
 - (a) Not more than 46 inches in height.
 - (b) Cross-keyed every course or secured to pallet.
 - (c) Stacked not more than 2 pallets high
- (6) Brick or block in a banded cube shall not be stacked more than 2 cubes high.

R 408.40820 Storage of lumber.

Rule 820. (1) Lumber shall be stacked on level and solidly supported sills so as to be self-supporting and stable.

(2) A pile of lumber manually stacked, and a pile of lumber to be manually unstacked, shall not exceed 6 feet in height.

(3) Lumber which is mechanically stacked shall not exceed 10 feet in height. This lumber shall not be rehandled manually, except as prescribed in subrule (2) of this rule.

(4) Used lumber shall have all protruding nails removed or bent into the lumber before stacking.

R 408.40821 Storage of material in bins or hoppers.

Rule 821. A bin or hopper that has a bottom discharge shall have sloped sides to allow material to flow freely.

R 408.40822 Clearances.

Rule 822. (1) Material stored near an electrical distribution or transmission line shall maintain the following clearances:

(a) Line rated 50 kV or less--10 feet plus length of material stored.

(b) Line rated 50 kV or more--10 feet plus 0.4 inch for each 1 kV over 50 kV plus length of material stored or 10 feet plus 4 inches for each 10 kV over 50 kV plus length of material stored.

(2) An employee shall be designated to observe the clearance and give timely warning if it is difficult for the operator to maintain the prescribed clearance by visual means.

R 408.40831 Disposal of waste materials.

Rule 831. (1) The area onto and through which material is to be dropped shall be completely enclosed with barricades not less than 36 inches or more than 42 inches high and not less than 6 feet back from the opening and area receiving the material. Signs warning of the hazard of falling materials shall be posted on the barricades at each level containing the barricades. Removal of signs shall not be permitted in this lower area until debris handling ceases above.

(2) If material is dumped from mechanical equipment or a wheelbarrow, then a toeboard or bumper not less than 4 inches thick x 6 inches high nominal size shall be secured to the floor at each material chute opening.

(3) If the drop is more than 20 feet outside the exterior of the building, then a chute as prescribed in subrule (2) of this rule shall be used, and extend to within 8 feet of the lower level.

(4) Material, barricades, and chutes shall not be removed until material handling ceases above.

(5) All scrap lumber, waste materials, or rubbish shall be removed from the immediate work area as the work progresses.

(6) Disposal of waste material or debris by burning shall comply with local fire regulations.

(7) All solvent waste, oily rags, and flammable liquids shall be kept in fire resistant covered containers until removed from the worksite.

R 408.40833 Slings.

Rule 833. (1) All slings used to store or handle material for construction operations shall meet the requirements of Part 49. Slings, R 408.14901 et seq.

(2) Employers shall ensure that rigging equipment complies with all of the following:

(a) Have permanently affixed and legible identification markings as prescribed by the manufacturer that indicate the recommended safe working load.

(b) Not be loaded in excess of its recommended safe working load as prescribed on the identification markings by the manufacturer.

(c) Not be used without affixed, legible identification markings, required by subrule (2)(a) of this rule.

(3) Employers shall not use improved plow-steel wire rope and wire-rope slings with loads in excess of the rated capacities, such as working load limits, indicated on the sling by permanently affixed and legible identification markings prescribed by the manufacturer.

(4) Wire rope slings shall have permanently affixed, legible identification markings stating size, rated capacity for the type or types of hitch or hitches used and the angle upon which it is based, and the number of legs if more than 1.

R 408.40834 Wire ropes.

Rule 834. (1) Wire rope shall be taken out of service if any of the following conditions exist:

(a) In running ropes, 6 randomly distributed broken wires in 1 lay or 3 broken wires in 1 strand in 1 lay.

(b) Wear of 1/3 the original diameter of outside individual wires. Kinking, crushing, bird-caging, or any other damage resulting in distortion of the rope structure, except for deformation caused by normal methods of attachment to drums, hooks, shackles, or other accessories.

(c) Evidence of any heat damage from any cause.

(d) Reductions from nominal diameter of more than 1/64-inch for diameters up to and including 5/16-inch, 1/32-inch for diameters 3/8-inch to and including 1/2-inch, 3/64-inch for diameters 9/16-inch to and including 3/4-inch, 1/16-inch for diameters 7/8-inch to 1-1/8-inches inclusive, 3/32-inch for diameters 1-1/4 to 1-1/2 inches inclusive.

(e) In standing ropes, more than 2 broken wires in 1 lay in sections beyond end connections or more than 1 broken wire at an end connection.

(f) Wire rope shall not be used if, in any length of 8 diameters, the total number of visible broken wires exceeds 10% of the total number of wires, or if the rope shows other signs of excessive wear, corrosion, or defect.

(2) A wire rope used for hoisting, lowering, or pulling shall consist of 1 continuous piece without a knot or splice, except an eye splice at the end of a wire rope.

(3) If wire rope clips are used to form eyes in a wire rope, table 1 shall be followed as to numbers and spacing to be used. The "u" section shall be on the dead end side.

(4) Protruding ends of strands in splices on slings and bridles shall be covered or blunted.

(5) Shock loading is prohibited.

(6) Table 1 reads as follows:

TABLE 1

NUMBER AND SPACING OF U-BOLT WIRE ROPE CLIPS			
Improved plow steel, rope diameter (inches)	Number of clips		Minimum spacing (inches)
	Drop forged	Other material	
1/2 or less	3	4	3
5/8	3	4	3-3/4
3/4	4	5	4-1/2
7/8	4	5	5-1/4
1	5	6	6
1-1/8	6	6	6-3/4
1-1/4	6	7	7-1/2
1-3/8	7	7	8-1/4
1-1/2	7	8	9

R 408.40836 Hooks, shackles, and other accessories.

Rule 836. (1) A hook, ring, oblong link, pear-shaped link, welded or mechanical coupling link, or other attachment, when used with alloy steel chain, shall have a rated capacity equal to the chain or rope to which it is attached, and the load shall not exceed the rated load. Shackles and other accessories shall have a rated capacity equal to or greater than the load to which it is attached.

(2) A hook shall be discarded if either of the following applies:

(a) The throat opening is more than 15% greater than the manufactured size.

(b) The hook has more than 10 degrees twist from a vertical center line drawn through the hook center.

(3) Special custom designed grabs, hooks, clamps, and other lifting accessories, for such units as modular panels, prefabricated structures and similar materials, shall be marked to indicate the safe working loads and shall be proof tested to 125% of their rated load.

(4) A job or shop hook and link, or a makeshift fastener, formed from a bolt, rod, or other such accessories, shall not be used, unless tested in accordance to subrule (3) ~~(4)~~ of this rule.

(5) A shackle and connecting pin, and other accessories, shall be discarded if the diameter is reduced by more than 10%.

R 408.40837 Chains.

Rule 837. (1) Chains used for material handling shall be made of alloy steel.

(2) A welded alloy steel chain shall have a permanently affixed tag showing the size, grade, rated capacity, and manufacturer's name.

(3) If wear at any point of any chain link is more than that shown in table 2, then the chain shall be repaired or replaced. The repair shall return the chain to its rated capacity.

(4) Employers shall not use alloy steel-chain slings with loads in excess of the rated capacities, such as working load limits, indicated on the sling by permanently affixed and legible identification markings prescribed by the manufacturer.

TABLE 2

MAXIMUM ALLOWABLE WEAR AT ANY POINT OF LINK	
Chain Size (inches)	Maximum Allowable Wear (inch)
1/4	3/64
3/8	5/64
1/2	7/64
5/8	9/64
3/4	5/32
7/8	11/64
1	3/16
1-1/8	7/32
1-1/4	1/4
1-3/8	9/32
1-1/2	5/16
1-3/4	11/32

R 408.40840 Shackles and hooks safe working loads.

Rule 840. (1) The manufacturer's recommendations shall be followed in determining the safe working loads of the various sizes and types of specific and identifiable hooks. All hooks for which manufacturer's recommendations are not available shall be tested to twice the intended safe working load before they are initially put into use. The employer shall maintain a record of the dates and results of such tests.

(2) Employers shall not use shackles with loads in excess of the rated capacities, such as working load limits, indicated on the shackle by permanently affixed and legible identification markings prescribed by the manufacturer.

R 408.40841 Synthetic webbing (nylon, polyester, and polypropylene).

Rule 841. (1) Employers shall use natural- and synthetic-fiber rope slings that have permanently affixed and legible identification markings that state the rated capacity for the type or types of hitch or hitches used and the angle upon which it is based, type of fiber material, and the number of legs if more than 1.

(2) Rated capacity shall not be exceeded.

(3) Synthetic webbing shall be of uniform thickness and width and selvage edges shall not be split from the webbing's width.

(4) Employers shall not use natural- and synthetic-fiber rope slings with loads in excess of the rated capacities, such as working load limits, indicated on the sling by permanently affixed and legible identification markings prescribed by the manufacturer.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION SAFETY STANDARDS

Filed with the Secretary of State on April 4, 2013

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a (6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 19 and 21 of 1974 PA 154, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.41111, R 408.41122, R 408.41123, R 408.41124, R 408.41126, R 408.41132, R 408.1133, and R 408.41140 of the Michigan Administrative Code are amended and R 408.41102, R 408.41115, R 408.41125, R 408.41130, and R 408.41131 of the Code are rescinded, as follows:

PART 11. FIXED AND PORTABLE LADDERS

R 408.41102. Rescinded.

R 408.41111. Adoption by reference; certification.

Rule 1111. (1) A manufactured portable wood ladder shall be constructed and maintained as prescribed in the ANSI standard A14.1-1990, which is adopted by reference in this rule and may be inspected at the Lansing office of the department of licensing and regulatory affairs. This standard may be purchased at a cost as of the time of adoption of this rule of \$36.00 from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado, 80112, telephone number 1-800-854-7179, website: www.global.ihs.com, or from the Michigan Department of Licensing and Regulatory Affairs, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.

(2) A manufactured portable metal ladder shall be constructed and maintained as prescribed in the ANSI standard A14.2-1990, which is adopted by reference in this rule and may be inspected at the Lansing office of the department of licensing and regulatory affairs. This standard may be purchased at a cost as of the time of adoption of this rule of \$41.00 from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado, 80112, telephone number 1-800-854-7179, website: www.global.ihs.com, or from the Michigan Department of Licensing and Regulatory Affairs, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.

(3) A manufactured portable plastic ladder shall be constructed and maintained as prescribed in the ANSI standard A14.5-1982 and supplement 1985, which is adopted by reference in this rule and may be inspected at the Lansing office of the department of licensing and regulatory affairs. This standard may be purchased at a cost as of the time of adoption of this rule of \$42.00 from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado, 80112, telephone number 1-800-854-7179,

website: www.global.ihs.com, or from the Michigan Department of Licensing and Regulatory Affairs, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.

(4) Fixed ladders shall be constructed and maintained as prescribed in the ANSI standard A14.3-1984, which is adopted by reference in this rule and may be inspected at the Lansing office of the department of licensing and regulatory affairs. This standard may be purchased at a cost as of the time of adoption of this rule of \$20.00 from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado, 80112, telephone number 1-800-854-7179, website: www.global.ihs.com, or from the Michigan Department of Licensing and Regulatory Affairs, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.

(5) A manufactured portable ladder shall be branded or have a permanent label permanently affixed by the manufacturer which shows the type of ladder and certifies that it meets the requirements of the appropriate ANSI standard as set out in subrules (1) to (4) of this rule.

R 408.41115. Rescinded.

R 408.41122. Use generally.

Rule 1122. (1) A ladder shall not be placed in a passageway, doorway, driveway, or any location where it may be displaced, unless it is protected by barricades or guards or is secured to prevent displacement.

(2) A ladder shall be placed on a substantial and stable base unless it is secured to prevent accidental displacement. The area around the top and bottom of the ladder shall be kept clear.

(3) A ladder shall not be used as a brace, slide, guy, gin pole, or gangway or for any other use than that for which it is designed.

(4) An employee shall face the ladder when ascending or descending. Each employee shall use at least 1 hand to grasp the ladder when progressing up or down the ladder. An employee shall not carry any object or load that could cause the employee to lose balance and fall.

(5) An employee who is on a ladder shall not overreach or do any pushing or pulling that may cause the ladder to move or topple. If both of an employee's shoulders are outside of a side rail, the employee is overreaching.

(6) A ladder shall be located and maintained to prevent an employee from bumping into, or snagging onto, projecting objects while ascending or descending the ladder.

(7) A ladder shall not be loaded beyond its load-carrying capacity.

(8) A ladder shall not be moved, shifted, or extended while occupied by an employee.

(9) Single-rail ladders shall not be used.

R 408.41123. Classification of ladders.

Rule 1123. The use of all manufactured portable ladders or stepladders shall be limited to those classified as type IA or type I, as prescribed in ANSI A14.1-1990, which is adopted by reference in this rule and may be inspected at the Lansing office of the department of licensing and regulatory affairs. This standard may be purchased from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado, 80112, telephone number 1-800-854-7179, website: www.global.ihs.com, or from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909, at a cost as of the time of adoption of this rule of \$36.00.

R 408.41124. Portable ladders.

Rule 1124. (1) A portable ladder shall be used at such a pitch that the horizontal projected distance from the top support to the base is not more than 1/4 of the vertical distance between these points.

(2) A portable ladder in use shall be equipped with appropriate safety feet, unless the ladder is tied, blocked, or otherwise secured to prevent it from being displaced. Slip-resistant feet shall not be used as a substitute for care in placing, lashing, or holding a ladder that is used upon slippery surfaces, including flat metal or concrete surfaces that are constructed so that they cannot be prevented from becoming slippery.

(3) A portable ladder that is used at such a pitch that the horizontal projected distance from the top support to the base is less than 1/5 of the vertical distance between these points shall be secured at the top to prevent tipping backward.

(4) A portable ladder that is used at a pitch of 80 degrees or more shall be in compliance with the requirements of a fixed ladder as prescribed in R 408.10335.

(5) When portable ladders are used for access to an upper landing surface, the ladder side rails shall extend not less than 3 feet (.9 m) above the upper landing surface to which the ladder is used to gain access; or, when such an extension is not possible because of the ladder's length, then the ladder shall be secured at its top to rigid support that will not deflect and a grasping device, such as a grabrail, shall be provided to assist employees in mounting and dismounting the ladder. The side rails shall not extend in a manner that would permit ladder deflection under a load, by itself, to cause the ladder to slip off its support. The top of a non-self-supporting ladder shall be placed with the 2 rails supported equally, unless the ladder is equipped with a single support attachment.

(6) A manufactured portable metal ladder shall not be used for electrical work or where the ladder or an employee may contact electrical conductors. A ladder shall have nonconductive siderails if the ladder is used where the employee or the ladder could contact exposed energized electrical equipment.

(7) A metal ladder shall not be used or moved unless a minimum of 20 feet is maintained between power transmission or distribution lines.

(8) A power transmission or distribution line or electrical apparatus shall be considered energized unless the property owner or utility indicates it is de-energized and the line or apparatus is visibly grounded. Where de-energizing is impractical, the minimum clearances set forth in table 1 shall be maintained between the ladder, employee, or material, whichever is closer.

(9) Table 1 reads as follows:

VOLTAGE	MINIMUM CLEARANCE
To 50 kV	10 feet
Over 50 kV	10 feet plus .4 inch per kV

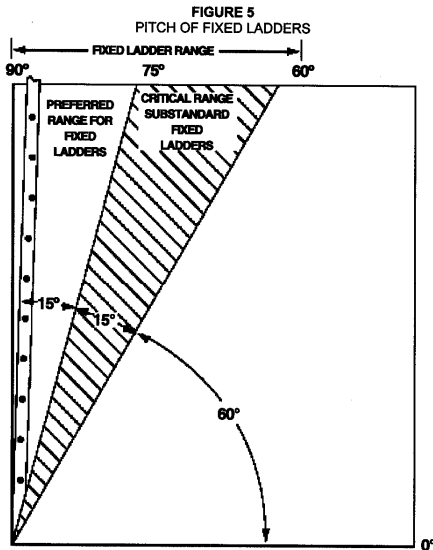
(10) An employee who is using a portable ladder shall not stand on the top 2 rungs or within 3 feet of the top of the ladder.

(11) Two portable ladders shall not be spliced together to provide long sections unless such ladders are specifically designed for such use.

(12) A portable 2-section extension ladder shall be erected so that the top section rests on the base section. The top section shall be the section nearest to the climber.

(13) A non-self-supporting ladder shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately 1/4 of the working length of the ladder that is the distance along the ladder between the foot and the top support.

(14) A fixed ladder shall be used at a pitch of not more than 90 degrees from the horizontal, as measured to the back side of the ladder. See figure 5.



R 408.41125. Rescinded.

R 408.41126. Use of stepladders.

Rule 1126. (1) An employee shall not use the backside of a stepladder for climbing, unless the stepladder is designed for such use.

(2) Unless the stepladder is equipped with a handrail, the top step and cap shall not be used to stand on.

(3) A stepladder shall not be used as a straight ladder by leaning it against a wall or other support.

(4) A metal spreader or locking device shall be provided on each stepladder to hold the front and back sections in an open position when the ladder is being used. The ladder shall be opened fully and the spreaders shall be locked while in use.

R 408.41130. Rescinded.

R 408.41131. Rescinded.

R 408.41132. Maintenance.

Rule 1132. (1) A ladder shall be maintained free of slip-enhancing hazards and in good working condition.

(2) A ladder shall not be painted with an opaque material. A ladder, particularly one used out-of-doors should be coated with a suitable transparent protective material to retard splintering caused by weathering.

(3) The side rails and legs of a ladder shall be kept free from splinters. The joint between the side rail and step shall be kept tight and metal hardware and fittings secured.

(4) A ladder surface shall be free of puncture or laceration hazards.

R 408.41133. Special-purpose ladders.

Rule 1133. (1) A special-purpose ladder may be capable of being used as a step ladder, a single or extension ladder, or a trestle ladder.

(2) A special-purpose ladder, when used as any of the types of ladders listed in subrule (1) of this rule, shall meet the requirements of the applicable rules of this part.

(3) A special-purpose ladder may be used by more than 1 employee if specifically designed for that purpose.

R 408.41140. Fixed ladders.

Rule 1140. A fixed ladder shall be as prescribed in Part 3. Fixed ladders, being R 408.10301 et seq. of the Michigan Administrative Code. This standard may be inspected at or purchased from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION SAFETY STANDARDS

Filed with the Secretary of State on April 4, 2013

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 19 and 21 of 1974 PA 154 and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.41802, R 408.41841, R 408.41852, R 408.41872, and R 408.41884 of the Michigan Administrative Code are amended and R 408.41842 and R 408.41850 are rescinded, as follows:

PART 18. FIRE PROTECTION AND PREVENTION

R 408.41802 Adopted and referenced standards.

Rule 1802. (1) The following standards are adopted by reference in these rules and are available from The National Fire Protection Association, (NFPA) 1 Batterymarch Park, Quincy, Massachusetts, 02169-7471, USA; telephone number: 617-770-3000; or via the internet at web-site: www.nfpa.org, at a cost as of the time of adoption of these rules as stated in this subrule.

(a) NFPA 13 "Installation Of Sprinkler System" 1991 edition. Cost \$27.00.

(b) NFPA 14 "Standard For The Installation Of Standpipe, Private Hydrants And Hose Systems", 2000 edition. Cost \$39.00.

(c) NFPA 25 "Inspection, Testing, And Maintenance Of Water-Based Fire Protection Systems", 1998 edition. Cost \$50.50.

(d) NFPA 251 "Standard Methods Of Fire Testing Of Building Construction And Materials," 1990 edition. Cost \$27.00.

(e) NFPA 30 "Flammable And Combustible Liquids Code," 1996 edition. Cost \$27.00.

(f) NFPA 385 "Standard For Tank Vehicles For Flammable And Combustible Liquids," 1990 edition. Cost \$27.00.

(g) NFPA 58 "Storage And Handling Of Liquefied Petroleum Gases", 1992 edition. Cost \$27.00.

(h) NFPA 52 "The Compressed Natural Gas Vehicular Fuel Systems," 1992 edition. Cost \$27.00.

(i) NFPA 59A "Production, Storage And Handling Of Liquefied Natural Gas," 1990 edition. Cost \$27.00.

(2) Compressed Gas Association (CGA) Standard CGA C7 "Guide To The Preparation Of Precautionary Labeling And Marking Of Compressed Gas Containers," 2000 edition, which is adopted

by reference in these rules and is available from IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at web-site: <http://global.ihs.com> at a cost as of the time of adoption of these amendments of \$892.00.

(3) The provisions of 49 C.F.R. Transportation “Subchapter D--Pipeline Safety” Parts 186-199, are adopted by reference in these rules and are available from the United States Government Bookstore via the internet at web-site: www.bookstore.gpo.gov at a cost as of the time of adoption of these rules of \$70.00.

(4) The standards adopted in subrules (1), (2), and (3) of this rule are also available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(5) Copies of the standards adopted in subrules (1), (2) and (3) of this rule may be obtained from the publisher or may also be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(6) Michigan Construction Safety Standard Part 22 'Signals, Signs, Tags And Barricades,' R 480.42201 to R 408.42242, is referenced in these rules. Up to 5 copies of this standard may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48908-8143, or via the internet at website: www.michigan.gov/mioshastandards.

R 408.41841 Employer responsibility.

Rule 1841. (1) An employer shall be responsible for the development and maintenance of a fire protection and prevention program to be followed during all phases of construction to reduce the chance of fire and injury to employees.

(2) The fire protection portion of the program shall include all of the following:

(a) Establishing and maintaining a means of egress from all areas of the building occupied by employees to provide free and unobstructed egress from all parts of the building or structure at all times when the building or structure is occupied. A lock or fastening that prevents free escape from the inside of any building shall not be installed, except in mental, penal, or corrective institutions where supervisory personnel is continually on duty and effective provisions are made to remove occupants in case of fire or other emergency.

(b) Posting fire rules or, by other means, informing the employees of the evacuation signal, escape routes, and emergency phone numbers. Exits shall be marked by a readily visible sign. Access to exits shall be marked by readily visible signs in all cases where the exit or way to reach the exit is not immediately visible to the occupants.

(c) A requirement that means of egress shall be continually maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency.

(3) The fire prevention portion of the program shall include both of the following:

(a) A housekeeping policy designed to keep a means of egress free from the accumulation of stored materials and debris and to reduce the likelihood of fire.

(b) A policy for the storage of combustible and flammable liquids and materials and for the use of proper heating equipment as prescribed in this part.

(4) Fire fighting equipment shall be provided by the employer and meet all of the applicable requirements of this part as to location, accessibility, inspection, testing, and maintenance. Defective equipment shall be immediately replaced.

R 408.41842 Rescinded.

R 408.41850 Rescinded.

R 408.41852 Portable fire extinguishing equipment; inspection, testing, and maintenance.

Rule 1852. (1) An extinguisher shall be inspected monthly, or at more frequent intervals when circumstances require. Inspections shall check for all of the following:

- (a) That the extinguisher is in its designated place.
- (b) That the extinguisher has not been actuated or tampered with.
- (c) That the extinguisher does not have obvious damage, physical damage, external corrosion, or other impairment.

(2) An extinguisher that shows defects which could possibly affect its operation shall be removed from service and given a complete check. An employer shall attach a tag to an extinguisher or keep a record documenting extinguisher maintenance or discharge dates and the initials or signature of the person who performed the service. Records shall be readable, kept on file or in an electronic system (for example, bar coding), and shall be available for inspection by a representative of the department of licensing and regulatory affairs. An employer shall keep a record of extinguisher maintenance or recharge dates and the initials or signature of the person who performed the service.

(3) An extinguisher shall receive a thorough inspection at least once a year to ensure operability. An extinguisher that requires recharging or weighing shall be maintained at least annually.

(4) An extinguisher that shows evidence of corrosion or mechanical damage shall be subjected to an approved hydrostatic test as prescribed in subrule (6) of this rule or shall be replaced.

(5) An extinguisher shall be given an approved hydrostatic test every 5 years, except for the following extinguishers, which shall be tested every 12 years:

- (a) A dry chemical extinguisher that has a brazed brass, aluminum, or mild steel shell.
- (b) An extinguisher that used bromotrifluoromethane.
- (c) A dry powder extinguisher that is for metal fires. The hydrostatic test date shall be recorded on a suitable metallized decal or on an equally durable material which has been affixed by a heatless process to the shell of the extinguisher and which shows the date of the test, the test pressure, and the name of the person or agency making the test. An extinguisher tested after the effective date of this part shall have a label that will not retain its original condition when removal from an extinguisher is attempted. An extinguisher manufactured under the department of transportation specifications adopted by reference in subrule (7) of this rule may have the inspection date and serviceman's or firm's name, initials, or symbol stamped into the cylinder.

(6) A nitrogen cylinder or other cylinder for inert gas, such as found on a wheeled extinguisher, shall be hydrostatically tested at not more than 5-year intervals.

(7) An extinguisher, cylinder, or cartridge which is used for the storage of a compressed gas and which is manufactured as prescribed in department of transportation specifications shall be hydrostatically tested in accordance with the provisions of C.F.R. 49 Transportation "Subchapter D--Pipeline Safety" Parts 186- 199, which are adopted by reference in R 408.41802.

(8) The hose and couplings on an extinguisher equipped with a shutoff nozzle at the outlet end of the hose shall have a hydrostatic test without the nozzle at the test intervals prescribed for the unit on which the hose is installed.

(9) An extinguisher shall be suitable for use within a temperature range from plus 40 degrees to plus 120 degrees Fahrenheit. An extinguisher installed at a location subject to temperature extremes shall be of a type listed for the temperature to which it will be exposed or shall be placed in an enclosure capable of maintaining the temperature.

R 408.41872 L. P. pipe, fittings, and hose.

Rule 1872. Piping, pipe and tubing fittings, and valves used to supply utilization equipment within the scope of this standard shall be acceptable for services as approved by the manufacture of the equipment.

R 408.41884 Heating devices.

Rule 1884. (1) A temporary heating device shall not produce combustion products that will increase the air contaminants above the maximum allowable limits established by the Construction Safety and Health Division of the Michigan department of licensing and regulatory affairs.

(2) A heating device, including a temporary heating device, shall be located at a distance sufficient to prevent ignition of any material in its proximity or the material shall be insulated.

(3) A temporary heating device shall not be located less than 50 feet from a point where a flammable or combustible liquid is used or dispensed.

(4) A temporary heating device that is set on a combustible floor shall be separated from the floor by an insulating material or 1 inch of concrete. The insulating material shall extend not less than 2 feet beyond the heater in all directions.

(5) A temporary heating device shall be located not less than 10 feet from a combustible covering, such as, but not limited to, canvas or tarpaulins, unless the covering is fastened to prevent its dislodgement due to wind action.

(6) A temporary heating device using L.P. gas, other than in an integral heater-container unit, shall be located not less than 6 feet from any L.P. gas container.

(7) Integral heaters may be used if designed and installed so as to prevent direct or radiant heat application to the container.

(8) Blower-and radiant-type units shall not be directed toward any L.P. gas container that is less than 20 feet away.

(9) If 2 or more heater units are located within the same unpartitioned area, then the containers of each unit shall be separated from the containers of any such other unit by not less than 20 feet.

(10) If containers are manifolded together and serve 1 heater on the same floor, then the total water capacity of the containers shall not be more than 735 pounds (nominal 300 pounds L.P. gas capacity). If more than 1 such manifold is used they shall be separated by not less than 20 feet.

(11) On floors on which no heaters are connected for use, containers may be manifolded together if the total water capacity is not more than 2,450 pounds (nominal 1,000 pounds L.P. gas capacity). Manifolds of more than 735 pounds water capacity shall be separated by not less than 50 feet.

(12) Heating devices, including portable heaters and salamanders using a liquid flammable fuel such as, but not limited to, fuel oil or kerosene, shall be equipped with an approved automatic shutoff safety control device which will, in the event of flame failure, shut off the flow of fuel to the main burner and pilot if used. The device shall not be relit while the combustion chamber is hot.

(13) Portable heaters including salamanders that have inputs above 50,000 British thermal unit's (B.T.U.) per hour, shall be equipped with either a pilot, that is lighted and proved before the main burner can be turned on, or an electric ignition system, except the provisions of this rule do not apply to any of the following:

(a) Tar kettles, hand torches, melting pots, or portable heaters of less than 7,500 British thermal unit's (B.T.U.), if used with 2 1/2 pound containers.

(b) Manufactured tent heaters, as utilized by, and in applications common to, public utilities or telecommunication companies, with 12,000 British Thermal Unit's (B.T.U.) input or less, when used out-of-doors and if constantly attended.

(14) A temporary heating device shall be installed horizontally level.

(15) A solid fuel salamander shall not be used in a building or on a scaffold.

(16) L.P. gas containers valves, connectors, regulators and manifolds, piping, and tubing shall not be used as structural supports for heaters and shall be located to minimize exposure to high temperatures or physical damage.

(17) A heating device, including a temporary heating device, designed for barometric or gravity oil feed shall be used only with an integral tank.

(18) Heaters specifically designed and approved for use with separate supply tanks may be connected for gravity feed, or an automatic pump, from a supply tank.

(19) L.P. containers may be used in buildings for temporary emergency heating as provided in this rule and the equipment shall not be left unattended.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION SAFETY STANDARDS

Filed with the Secretary of State on April 4, 2013

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 19 and 21 of 1974 PA 154 and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.41932, R 408.41934, R 408.41935, R 408.41943, R 408.41945, R 408.41949, R 408.41952, R 408.41953, R 408.41954, R 408.41957, R 408.41959, R 408.41964, R 408.41977, and R 408.41980 of the Michigan Administrative Code are amended, and R 408.41902 is added, and R 408.41931, R 408.41956, R 408.41970, R 408.41971, R 408.41974, R 408.41975, and R 408.41979 are rescinded, as follows

PART 19. TOOLS

R 408.41902 Adopted and referenced standards.

Rule 1902. (1) The following standards are adopted by reference in these rules and are available from IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at web-site: <http://global.ihs.com> a cost as of the time of adoption of these rules as stated in this subrule.

(a) American National Standards Institute (ANSI) 01.1 "Safety Code for Woodworking Machinery," 1961 edition. Cost: \$20.00.

(b) ANSI A10.3 "Powder-Actuated Fastening Systems," 1985 edition. Cost: \$20.00.

(c) American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section VIII, "Unfired Pressure Vessels," 1980 edition. Cost: \$514.00.

(2) The standards adopted in subrule (1) of this rule are also available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(3) Copies of the standards adopted in subrule (1) of this rule may be obtained from the publisher or may also be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(4) The following Michigan occupational safety and health standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of licensing and regulatory affairs, MIOSHA standards section, 7150 Harris Drive, P.O. Box 30643, Lansing, MI, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) Construction Safety Standard Part 6 “Personal Protective Equipment,” R 408.40601 to R 408.40641.

(b) Construction Safety Standard Part 22 “Signals, Signs, Tags And Barricades,” R 480.42201 to R 408.42242,

(c) Occupational Health Standard Part 621 “Health Hazard Control for Specific Equipment and Operations for Construction,” R 325.62102 to R 325.62126.

R 408.41931. Rescinded.

R 408.41932. Tools generally.

Rule 1932. (1) Regardless of ownership, a tool or part of a tool with a defect that could cause an injury shall be replaced or repaired before use.

(2) When a guard is provided on a tool, it shall not be made inoperative. It may be removed only for repair, service, or setup, and it shall be replaced before the tool is returned to use.

(3) Hand tools or portable powered tools shall not be left on a scaffold, ladder, or work platform after the completion of the work operation or day. Before the scaffold, ladder, or work platform is moved, all tools shall be removed or properly secured against displacement.

(4) A tool shall be visually inspected by the user for safe operation before each daily use and, when found defective, shall be removed from service and tagged. The tag shall be in compliance with construction safety standard, Part 22 “Signals, Signs, Tags, and Barricades,” which is referenced in R 408.41902.

(5) A tool that is used in a potentially explosive atmosphere shall be designed and approved for such atmosphere.

(6) A safety device or operating control shall not be made inoperative, except for the removal of lock-on control devices.

R 408.41934. Electric-powered tools.

Rule 1934. (1) An electric-powered tool, such as a saw, drill motor, and router, shall be grounded. This requirement does not pertain to ungrounded electrical systems. Ground fault circuit interrupters shall be used with ungrounded electrical systems.

(2) Subrule (1) of this rule does not apply to a double insulated electric power tool labeled with underwriters laboratory or other nationally recognized testing laboratory approval for double-insulated tools.

(3) A portable, power-driven circular saw shall be equipped with a guard above and below the base plate or shoe. The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work. When the saw is withdrawn from the work, the lower guard shall return automatically and instantly to the covered position.

(4) The trailing cord of a portable powered tool shall not be used to hoist or lower the tool.

(5) A powered tool shall be disconnected from its power source when it is serviced or when the point of operation device is changed by a device or tool.

(6) When not grounded or double-insulated, an electrically powered hand tool used for the installation of power transmission and distribution systems shall be connected to the power supply by means of an isolating transformer or other isolated power supply.

R 408.41935. Portable pneumatic-powered tools.

Rule 1935. (1) Safety clips or retainers shall be installed on pneumatic impact tools to prevent dies and tools from being accidentally expelled from the barrel.

(2) Pressure shall be shut off by means of a valve and exhausted from lines before disconnecting the lines from tools or connections, except when using a quick makeup coupling.

(3) Safety fasteners shall be provided at connections between tools and hose lines and at all quick makeup-type connections to prevent accidental disengagement.

(4) The rated pressure capacity of hoses, pipes, filters, valves, and fittings shall be not less than the rated pressure capacity of the tool. The pneumatic tool and its accessories shall not be operated at a pressure that is more than the rated capacity.

(5) Defective hoses or connections shall be removed from service.

(6) A hose shall not be used for hoisting or lowering a pneumatic-powered tool.

(7) A pneumatic-powered tool that has a hose which has an inside diameter of more than 1/2 of an inch shall have a safety device at the source of supply or branch line to reduce the pressure in case of hose failure.

(8) An airless spray gun that atomizes paint and fluids at a pressure of more than 1,000 pounds per square inch shall be equipped with an automatic or visible manual safety device that prevents the pulling of the trigger to release the paint or fluid until the safety device is manually released.

(9) Abrasive blast cleaning nozzles shall be equipped with an operating valve that can only be held open manually. A support shall be provided on which the nozzle may be mounted when it is not in use.

R 408.41943. Powder-actuated tool operation.

Rule 1943. (1) An operator and assistant using a powder actuated tool shall be safeguarded by means of eye protection. Head and face protection shall be used, as required by the working conditions. Eye protection and head and face protection shall be provided for and as prescribed in Construction Safety Standard Part 6 "Personal Protective Equipment," which is referenced in R 408.41902.

(2) Before using a powder-actuated tool, the operator shall inspect it to determine to the operator's satisfaction that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions. A tool found not to be in proper working order, or that develops a defect during use, shall be immediately removed from service and tagged, and not used until repaired. The tag shall be as prescribed in Construction Safety Standard Part 22 "Signals, Signs, Tags, and Barricades," which is referenced in R 408.41902.

(3) A powder-actuated tool shall not be loaded until just prior to the intended firing time. An unattended powder-actuated tool shall not be left loaded.

(4) A powder-actuated tool shall not be left unattended in a place where it is available to unauthorized persons.

(5) Neither a loaded nor an empty powder-actuated tool shall be pointed at any employee, and hands should be kept clear of the open barrel end.

(6) A fastener shall not be driven under any of the following conditions:

(a) Through an existing hole, unless a positive guide is used to secure accurate alignment.

(b) Into a material which can be easily penetrated, unless the material is backed by a substance that will prevent the fastener from passing completely through and creating a flying missile hazard on the other side.

(c) Into a very hard or brittle material, such as cast iron, glazed tile, surface hardened steel, glass block, live rock, face brick, or hollow tile, unless designed for such use. Before fastening any questionable material, the operator shall determine its suitability by using a fastening as a center punch. If the fastener

point does not easily penetrate, is not blunted, and does not fracture the material, initial test fastenings shall then be made pursuant to the tool manufacturer's recommendations.

(d) Directly into material, such as brick or concrete, closer than 3 inches from the unsupported edge or corner, or into a steel surface closer than 1/2 inch from the unsupported edge or corner, unless a special guard, fixture, or jig is used. As an exception, a low velocity powder-actuated tool may drive no closer than 2 inches from the edge in concrete or 1/4 inch in steel. When fastening other material such as a 2 inch by 4 inch wood section to a concrete surface, a fastener of no greater than 7/32 inch shank diameter may be driven not closer than 2 inches from the unsupported edge or corner of the work surface.

(7) A fastener shall not be driven into a spalled area caused by an unsatisfactory fastening.

(8) A powder-actuated tool shall be used with the correct guard, shield, or attachment recommended by the manufacturer.

R 408.41945. Powder-actuated tools; design and construction.

Rule 1945. A powder-actuated tool shall be designed and constructed as prescribed in section 6 of the ANSI standard, A10.3 "Powder-Actuated Fastening Systems," 1985 edition, which is adopted by reference in R 408.41902.

R 408.41949. Powder-actuated tool loads and studs.

Rule 1949. (1) Power loads shall be coded and used as prescribed in section 7 and table 1 of the ANSI standard A10.3 "Powder-Actuated Fastening Systems," which is adopted by reference in R 408.41902.

(2) Studs or other fasteners used in powder-actuated tools shall be only those specifically manufactured for use in powder-actuated tools.

R 408.41952. Woodworking tools and machinery.

Rule 1952. All woodworking tools and machinery shall meet all other applicable requirements of the ANSI standard 01.1 "Safety Code for Woodworking Machinery," 1961 edition, which is adopted by reference in R 408.41902.

R 408.41953. Circular table saw guards.

Rule 1953. (1) A circular table saw shall have a hood type guard covering the blade at all times when not in use. When in use, the hood type guard shall enclose that part of the blade above the table and that part of the blade above the material by adjusting automatically to the thickness of the material being cut, or it may be a fixed or manually adjusted hood-type guard if the hood remains in contact with the material.

(2) A hood-type guard shall be made of 14-gauge metal or thicker. Plastic may be used if it can resist blows and strains incidental to reasonable operation, adjusting, and handling, and is designed to protect the operator from flying splinters and broken saw teeth. The guard shall be made of material soft enough so that it will be unlikely to cause tooth breakage.

(3) The hood shall be mounted so that its operation is positive, reliable, and in true alignment with the saw. The mounting shall be of sufficient strength to resist any reasonable side thrust or other force tending to throw it out of line.

R 408.41954. Radial arm saws; guards, spreaders, and stops.

Rule 1954. (1) The upper hood of a radial arm saw shall completely enclose the upper portion of the blade down to a point that includes the end of the saw arbor. The upper hood shall be constructed in a

manner and of not less than 14-gauge sheet metal or equivalent material that protects the operator from flying splinters and broken saw teeth and deflects sawdust away from the operator. The sides of the lower exposed portion of the blade shall be guarded to the full diameter of the blade by a device that automatically adjusts itself to the thickness of the stock and remains in contact with the stock being cut to give the maximum protection possible for the operation being performed.

(2) Nonkickback fingers or dogs shall be located on both sides of each radial arm saw blade used for ripping to oppose the thrust or tendency of the saw to pick up the material or to throw it back toward the operator. They shall be designed to provide adequate holding power for all thicknesses of material being cut. When a radial arm saw is used for ripping, a spreader should be provided that complies with Rule 1952(4).

(3) An adjustable stop shall be provided to prevent the forward travel of the blade beyond the position necessary to complete the cut in repetitive operations. A limit chain or other equally effective device shall be provided to prevent the saw blade from sliding beyond the edge of table or the table at that place shall be extended to eliminate overrun.

(4) The cutting head of a radial arm saw shall return gently, without rebound, to the starting position when released by either of the following means:

(a) Sloping the unit.

(b) A counterweight system. This system shall not use fiber and synthetic rope or springs.

R 408.41956. Rescinded.

R 408.41957. Stationary machine tools generally.

Rule 1957. (1) Machine tools, such as band saws, drill presses, and pipe-cutting and pipe-threading machines, which are set up on a construction project in a temporary stationary position shall have a stop device which is within reach of the operator's designated position and shall have power on/off switch. The switch shall be located and guarded so as to prevent unintentional activation by contact with objects or part of the body.

(2) A foot control shall be provided with a cover or guard that is capable of preventing accidental activation.

R 408.41959. Fuel-powered tools.

Rule 1959. (1) A fuel-powered tool shall be stopped before being refueled, serviced, or maintained.

(2) When using a fuel-fired powered tool in an enclosed area, the toxic fumes shall be exhausted as prescribed by Occupational Health Standard Part 621 "Health Hazard Control for Specific Equipment and Operations for Construction," which is referenced in R 408.41902.

(3) A fuel-fired portable tool shall be moved a minimum of 10 feet from the place where it was refueled before starting.

(4) A chain saw's chain shall be stopped if it is not being used for sawing. A chain saw shall be carried by the top handle with the guide bar to the rear.

(5) The use of a chain saw to open a hole in a solid object, such as a floor, wall, or panel, is prohibited.

(6) A chain saw's chain shall be guarded adjacent to the handle area. Sawdust from a chain saw shall be directed away from the operator.

R 408.41964. Hydraulic power tools.

Rule 1964. (1) A hydraulically powered tool shall use approved fire-resistant fluids which do not change the performance characteristics during temperature extremes.

(2) The rated capacity of hydraulic hose, valves, pipe, filters, and other fittings shall not be exceeded.

R 408.41970. Rescinded.

R 408.41971. Rescinded.

R 408.41974. Rescinded.

R 408.41975. Rescinded.

R 408.41977. Metalworking machinery or equipment; maintenance and lubrication.

Rule 1977. Any of the following methods shall be used to lubricate metalworking machinery or equipment:

- (a) Manual lubrication when the machine can be shut off and locked out.
- (b) The use of an automatic pressure or gravity feed system.
- (c) The use of an extension pipe leading to an area outside guards or away from any hazard.
- (d) The use of a means which would provide equal or greater protection to the employee than the methods specified in subdivisions (a), (b), or (c) of this subrule.

R 408.41979. Rescinded.

R 408.41980. Air receivers.

Rule 1980. (1) All new air receivers installed after July 28, 1995, shall be constructed in accordance with the American Society Of Mechanical Engineers (ASME) “Boiler And Pressure Vessel Code,” Section VIII, “Unfired Pressure Vessels,” 1980 edition which is adopted by reference in R 408.41902.

(2) All safety valves used shall be constructed, installed, and maintained in accordance with the-ASME “Boiler and Pressure Vessel Code,” Section VIII, “Unfired Pressure Vessels,” 1980 edition which is adopted by reference in R 408.41902.

(3) Air receivers shall be installed so that all drains, handholes, and manholes are easily accessible. An air receiver shall not be buried underground or located in an inaccessible place.

(4) A drain pipe and valve shall be installed at the lowest point of every air receiver to provide for the removal of accumulated oil and water. Adequate automatic traps may be installed in addition to drain valves. The drain valve on the air receiver shall be opened and the receiver completely drained frequently to prevent the accumulation of excessive amounts of liquid in the receiver.

(5) Every air receiver shall be equipped with an indicating pressure gauge that is located so that it is readily visible and equipped with 1 or more spring-loaded safety valves. The total relieving capacity of the safety valves shall be adequate to prevent pressure in the receiver from exceeding the maximum allowable working pressure of the receiver by more than 10%.

(6) A valve shall not be placed between the air receiver and its safety valve or valves.

(7) Safety appliances, such as safety valves, indicating devices, and controlling devices, shall be constructed, located, and installed so that they cannot be readily rendered inoperative by any means, including the elements.

(8) All safety valves shall be tested frequently at regular intervals to determine whether they are in good operating condition.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

OCCUPATIONAL HEALTH STANDARDS

Filed with the Secretary of State on April 12, 2013

These rules take effect 7 days after filing with the Secretary of State

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 14 and 24 of 1974 PA 154, MCL 408.1014 and 408.1024; and Executive Reorganization Orders Nos. 1996-1, 1996-2, 2003-1, 2008-4, and 2011-4, MCL 330.3101, 445.2001, 445.2011, 445.2025 and 445.2030)

R 325.50301, R 325.50303, and R 325.50304 of the Michigan Administrative Code are amended and R 325.50302, R 325.50305, R 325.50306, R 325.50307, R 325.50308, R 325.50309, R 325.50310, R 325.50311, R 325.50312, R 325.50313, R 325.50314, R 325.50315, R 325.50316, R 325.50317, R 325.50318, R 325.50319, R 325.50320, R 325.50321, R 325.50322, R 325.50323, R 325.50324, R 325.50325, R 325.50326, R 325.50327, R 325.50328, R 325.50329, R 325.50330, R 325.50331, R 325.50332, R 325.50333, R 325.50334, R 325.50335, R 325.50336, R 325.50337, R 325.50338, R 325.50339, R 325.50340, R 325.50341, R 325.50342, R 325.50343, R 325.50344, R 325.50345, R 325.50346, R 325.50347 and R 325.50348 of the Code are rescinded, as follows:

PART 504. DIVING OPERATIONS

R 325.50301 Scope.

Rule 301. This part pertains to the safe use and maintenance of equipment and procedures of the occupation of diving and the related support operations as used in general industry and construction operations. This part does not apply to a diving operation performed solely for recreational instruction purposes using open-circuit compressed-air SCUBA and conducted within the no-decompression limits.

R 325.50302 Rescinded.

R 325.50303 Adoption by reference of federal standard.

Rule 303. (1) The provisions of federal occupational safety and health administration regulations on Commercial Diving Operations 1910 Subpart T promulgated by the United States department of labor and codified at 29 C.F.R. §1910.401 to 1910.440 including appendices A through C are adopted by reference in these rules. As used in these rules:

(a) "Area Director," as used in 29 C.F.R. §1910.401(b)(1) and (b)(2), means director of the Michigan occupational safety and health administration (MIOSHA).

(b) "Assistant Secretary," as used in 29 C.F.R. §1910.440(b)(1), means director of the department of licensing and regulatory affairs.

(c) "§1910.101," referenced in 29 C.F.R. §1910.430(e)(1), means general industry safety standard Part 69 Compressed Gases: Acetylene, Hydrogen, Oxygen, and Nitrous Oxide, R 408.16902, which adopts the provisions of 29 C.F.R. §1910.101.

(d) "§1910.109," referenced in 29 C.F.R. §1910.422(h)(1), means general industry safety standard Part 55 Explosives and Blasting Agents, R 408.15501, which adopts the provisions of 29 CFR §1910.109.

(e) "§1910.169," referenced in 29 C.F.R. §1910.430(e)(1), means general industry safety standard Part 93 Air Receivers, R 408.19301, which adopts the provisions of 29 CFR §1910.169.

(f) "§1910.1020," referenced in 29 C.F.R. §1910.440(b)(4), means occupational health standard Part 470 Employee Medical Records and Trade Secrets, R 325.3451 to R 325.3476.

(g) "§1926.912," referenced in 29 C.F.R. §1910.422(h)(1), means construction safety standard Part 27 Blasting and Use of Explosives, R 408.42701 to R 408.42799.

R 325.50304 Availability of documents.

Rule 304. (1) The federal regulation adopted by reference in these rules is available without cost as of the time of adoption of these rules from the United States Department of Labor, OSHA, 315 West Allegan, Room 315, Lansing, Michigan 48933, or via the internet at website: www.osha.gov, or from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, P.O. Box 30643, Lansing, Michigan 48909-8143.

(2) The following Michigan occupational safety and health standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, as of the time of adoption of these rules, is 4 cents per page.

(a) Construction safety standard part 27 "Blasting and Use of Explosives," R 408.42701 to R 408.42799.

(b) General industry safety standard part 55 "Explosives and Blasting Agents," R 408.15501.

(c) General industry safety standard part 69 "Compressed Gases: Acetylene, Hydrogen, Oxygen, and Nitrous Oxide," R 408.16902.

(d) General industry safety standard part 93 "Air Receivers," R 408.19301.

(e) Occupational health standard part 470 "Employee Medical Records and Trade Secrets," R 325.3451 to R 325.3476.

R 325.50305 Rescinded.

R 325.50306 Rescinded.

R 325.50307 Rescinded.

R 325.50308 Rescinded.

R 325.50309 Rescinded.

R 325.50310 Rescinded.

R 325.50311 Rescinded.

R 325.50312 Rescinded.

R 325.50313 Rescinded.

R 325.50314 Rescinded.

R 325.50315 Rescinded.

R 325.50316 Rescinded.

R 325.50317 Rescinded.

R 325.50318 Rescinded.

R 325.50319 Rescinded.

R 325.50320 Rescinded.

R 325.50321 Rescinded.

R 325.50322 Rescinded.

R 325.50323 Rescinded.

R 325.50324 Rescinded.

R 325.50325 Rescinded.

R 325.50326 Rescinded.

R 325.50327 Rescinded.

R 325.50328 Rescinded.

R 325.50329 Rescinded.

R 325.50330 Rescinded.

R 325.50331 Rescinded.

R 325.50332 Rescinded.

R 325.50333 Rescinded.

R 325.50334 Rescinded.

R 325.50335 Rescinded.

R 325.50336 Rescinded.

R 325.50337 Rescinded.

R 325.50338 Rescinded.

R 325.50339 Rescinded.

R 325.50340 Rescinded.

R 325.50341 Rescinded.

R 325.50342 Rescinded.

R 325.50343 Rescinded.

R 325.50344 Rescinded.

R 325.50345 Rescinded.

R 325.50346 Rescinded.

R 325.50347 Rescinded.

R 325.50348 Rescinded.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY STANDARDS

Filed with the Secretary of State on April 12, 2013

These rules take effect 7 days after filing with the Secretary of State

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154, MCL 408.1019 and 408.1021; and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.17901, R 408.17903, R 408.17904, R 408.17905, R 408.17906, R 408.17907, R 408.17909, R 408.17911, R 408.17912, R 408.17913, R 408.17914, R 408.17921, R 408.17922, R 408.17923, R 408.17924, R 408.17925, R 408.17926, R 408.17927, R 408.17931, R 408.17932, R 408.17933, R 408.17934, R 408.17941, R 408.17942, R 408.17945, R 408.17946, R 408.17951, R 408.17952, R 408.17953, R 408.17954, R 408.17955, R 408.17956, R 408.17957, R 408.17958, R 408.17961, and R 408.17962 of the Michigan Administrative Code are rescinded, as follows:

PART 79. DIVING OPERATIONS

R 408.17901 Rescinded.

R 408.17903 Rescinded.

R 408.17904 Rescinded.

R 408.17905 Rescinded.

R 408.17906 Rescinded.

R 408.17907 Rescinded.

R 408.17909 Rescinded.

R 408.17911 Rescinded.

R 408.17912 Rescinded.

R 408.17913 Rescinded.

R 408.17914 Rescinded.

R 408.17921 Rescinded.

R 408.17922 Rescinded.

R 408.17923 Rescinded.

R 408.17924 Rescinded.

R 408.17925 Rescinded.

R 408.17926 Rescinded.

R 408.17927 Rescinded.

R 408.17931 Rescinded.

R 408.17932 Rescinded.

R 408.17933 Rescinded.

R 408.17934 Rescinded.

R 408.17941 Rescinded.

R 408.17942 Rescinded.

R 408.17945 Rescinded.

R 408.17946 Rescinded.

R 408.17951 Rescinded.

R 408.17952 Rescinded.

R 408.17953 Rescinded.

R 408.17954 Rescinded.

R 408.17955 Rescinded.

R 408.17956 Rescinded.

R 408.17957 Rescinded.

R 408.17958 Rescinded.

R 408.17961 Rescinded.

R 408.17962 Rescinded.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION SAFETY STANDARDS

Filed with the Secretary of State on April 4, 2013

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a (6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 19 and 21 of 1974 PA 154 and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.41210, R 408.41211, R 408.41215, R 408.4117, R 408.41221, R 408.41222, R 408.41224, R 408.41225, R 408.41226, R 408.41227, R 408.41231, R 408.41232, R 408.41233, R 408.41234, R 408.41235, R 408.41236, R 408.41237, R 408.41243, R 408.41245, R 408.41253, R 408.41254, R 408.41255, R 408.41256, R 408.41261, and R 408.41264 of the Michigan Administrative Code are amended, and R 408.41228, R 408.41244, R 408.41246, R 408.41262, and R 408.41263 of the Code are rescinded, as follows:

PART 12. SCAFFOLDS AND SCAFFOLD PLATFORMS

R 408.41210 Construction and capacity generally.

Rule 1210. (1) A scaffold shall be designed, constructed, erected, and used in accordance with the provisions of this part. A scaffold shall be designed by a qualified person.

(2) A scaffold shall not be erected, moved, dismantled, or altered, except under the supervision of a competent person.

(3) A scaffold and its components shall be capable of supporting, without failure, not less than 4 times the maximum intended load.

(4) A specially designed scaffold that utilizes methods of bracing other than cross bracing is acceptable if the scaffold and its components comply with the requirements of this rule.

(5) A scaffold shall not be loaded to more than the designed working load.

(6) Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each work shift and after any occurrence that could affect a scaffold's structural integrity. Any scaffold, including accessories such as braces, brackets, trusses, screw legs, ladders, or platforms, that is damaged or weakened from any cause shall be immediately repaired or replaced. Any scaffold or accessories that are repaired shall have at least the original designed strength of the scaffold or accessory.

(7) An employee on a scaffold who is exposed to an overhead hazard of falling material shall be protected with overhead protection that is sufficient to prevent injury.

(8) All load-carrying wood members of scaffold framing shall be a minimum of 1,500 psi fiber stress value. (9) The poles, legs, or uprights of scaffolds shall be plumb and shall be securely and rigidly braced to prevent swaying and displacement.

(10) The support for a scaffold shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Leveling jack adjusting screws, when used, shall not extend more than 18 inches below the base of the scaffold. Unstable objects, such as barrels, boxes, pallets, brick, or concrete blocks, shall not be used to support a scaffold or work platform. Scaffold poles, legs, posts, frames, and uprights shall bear on base plates and mudsills or other adequate firm foundation.

(11) Scaffold components that are not designed to be compatible shall not be intermixed.

(12) A shore or lean-to scaffold shall not be used.

(13) Makeshift devices, such as, but not limited to boxes and barrels, shall not be used on top of scaffold platforms to increase the working level height of employees.

(14) A ladder shall not be used on a scaffold to increase the working level height of employees, except on a large area scaffold where an employer has satisfied all of the following criteria:

(a) When the ladder is placed against a structure that is not a part of the scaffold, the scaffold shall be secured against the sideways thrust exerted by the ladder.

(b) The platform units shall be secured to the scaffold to prevent the units from moving.

(c) Either the ladder legs shall be on the same platform or another means shall be provided to stabilize the ladder against unequal platform deflection.

(d) The ladder legs shall be secured to prevent them from slipping or being pushed off the platform.

R 408.41211 Access to scaffold platforms.

Rule 1211. (1) Access to a scaffold platform shall be provided by 1 or more of the following:

(a) A ladder that conforms to R 408.41101 et seq.

(b) Hook-on or attachable metal ladders that are specifically designed for use in construction with manufactured types of scaffolds. If hook-on or attachable metal ladders are used as access to, or egress from, a work platform that is more than 35 feet above the ground or floor level, then a ladder safety device shall be installed or the ladders shall be offset with landing platforms and guardrails that are installed at not more than 35-foot intervals.

(c) Step or hook-on, stair-type accessories that are specifically designed for use with appropriate types of scaffolds.

(d) Direct access from an adjacent scaffold, the structure, or personnel hoist. The direct access to or from another surface shall be used only when the scaffold is not more than 14 inches (36 cm) horizontally and not more than 24 inches (61 cm) vertically from the other surface.

(e) A ramp, runway, or stairway that conforms to R 408.42121 et seq.

(2) The intermediate horizontal members of the frame of a manufactured tubular welded frame scaffold may be used instead of a ladder or stairway for access to, and egress from, the work platform, if all of the following conditions are met:

(a) All the frames and component parts are compatible in design.

(b) The intermediate horizontal members of a frame are a minimum of 11 1/2 inches in length.

(c) The horizontal members of each frame shall be uniformly spaced and shall not be more than 18 inches center to center vertically.

(d) When frames are connected vertically to one another, the distance between the bottom horizontal member of the upper end frame and the top horizontal member of the lower end frame shall be within 3 inches of the uniform spacing of the horizontal members of each frame.

(e) The elevation to the lowest horizontal member of the bottom frame shall not be more than 24 inches from the ground or floor.

(f) Each horizontal member shall be capable of supporting 300 pounds applied at its midpoint without bending or cracking.

(g) Each horizontal member shall be inspected for, and found free of, cracks, bends, or bad welds. Cracks, bends, or bad welds shall be corrected.

(h) Only 1 employee at a time shall use a horizontal member of a frame as access to, or egress from, the workstation.

(i) Cross braces shall not be used as a means of access.

(3) The guardrail system located on the side where horizontal members of the scaffold frame are used for access to, or egress from, a work platform shall be constructed as follows:

(a) The intermediate rail shall be omitted between the corner posts at the access location.

(b) The top rail shall be continuous between posts. A scaffold and its components shall be capable of supporting, without failure, not less than 4 times the maximum intended load.

(4) If horizontal members of scaffold frames are used as access to, or egress from, a work platform which is more than 35 feet above ground or floor level, a ladder safety device shall be installed and used or the horizontal members shall be offset with landing platforms and guardrails that are installed at not more than 30-foot intervals.

(5) Steps and rungs of ladder and stairway-type access shall line up vertically with each other between rest platforms.

(6) All of the following provisions apply to erecting or dismantling a scaffold:

(a) An employer shall provide a safe means of access for each employee erecting or dismantling a scaffold if providing safe access is feasible and does not create a greater hazard. The employer shall have a competent person determine whether it is feasible or would pose a greater hazard to provide, and have employees use, a safe means of access. The determination shall be based on site conditions and the type of scaffold being erected or dismantled.

(b) Hook-on or attachable ladders shall be installed as soon as scaffold erection has progressed to a point that permits safe installation and use.

(c) When erecting or dismantling tubular welded frame scaffolds, endframes, that have horizontal members which are parallel, level, and not more than 22 inches apart vertically as climbing devices for access, the employer shall ensure that the tubular welded frame scaffolds are erected in a manner that creates a usable ladder and provides a good handhold and foot space.

(d) Cross braces on tubular welded frame scaffolds shall not be used as a means of access or egress.

R 408.41215 Powered hoisting machines.

Rule 1215. (1) Gears and brakes of a powered hoisting machine shall be enclosed.

(2) In addition to the operating brake, a machine shall have an emergency brake which engages automatically when the normal speed of descent is exceeded.

R 408.41217 Planking and scaffold platforms generally.

Rule 1217. (1) If wood planks are used for a work platform, then the planks shall be scaffold-grade lumber that has a minimum of 1,500 pounds per square inch fiber stress value. The planks shall be not less than 2 inches by 10 inches. The platform shall consist of a minimum of 2 planks laid side by side. Each platform on all working levels of scaffolds shall be fully planked or decked between uprights where practicable. Spaces between the platform and the uprights shall not be more than 9 1/2 inches. The maximum permissible spans for 2- by 10-inch or wider planks are as follows:

	Material full thickness undressed lumber	Material nominal thickness lumber
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Working load (per square foot)	25 50 62 75	25 37 50 62
Permissible span (feet)	10 8 7 6	8 7 6 4

(2) Wood scaffold planks, laminated planks, manufactured work platforms, and picks that are found to be defective shall be removed from service and shall not be used.

(3) A manufactured pick shall be permanently marked or tagged to indicate the maximum working load and shall not be less than 14 inches wide when used in single width, except that a ladder jack scaffold may be used with a minimum 12-inch manufactured pick.

(4) Platform planks shall be laid with their edges together so the platform is tight and does not have spaces through which tools or fragments of materials can fall.

(5) Planking shall be in compliance with all of the following provisions:

(a) Extend over the end bearer not less than 6 inches, but not more than 12 inches.

(b) Be cleated or otherwise fastened to prevent shifting and be uniform in thickness, except where lapped as prescribed in subrule (8) ~~–(10)~~ of this rule.

(c) Where 16-foot planks are used as prescribed in subrule (7) of this rule, tie downs are not required unless wind uplift may occur.

(6) Hook-on-type manufactured work platforms may be used if they are secured to the bearer.

(7) Where planks are lapped, each plank shall lap its bearer not less than 6 inches, which will provide a minimum overlap of 12 inches.

(8) Where a scaffold turns a corner, the planks shall be laid to prevent tipping. The planks that meet the corner bearer at an angle shall be laid first and shall extend over the diagonally placed bearer far enough to have a good bearing, but not far enough to tip. The planks that run in the different direction shall be laid so as to extend over the rest on the first layer of planks.

(9) When moving a platform to the next level, an employee shall leave the old platform undisturbed until the new platform supports have been set in place and are ready to receive the platform planks.

(10) A platform shall not deflect more than 1/60 of the span when loaded.

(11) A wood platform shall not be covered with opaque finishes, except that platform edges may be covered or marked for identification. A platform may be coated periodically with wood preservatives, fire-retardant finishes, and slip-resistant finishes; however, the coating may not obscure the top or bottom wood surfaces.

(12) The front of a platform shall be not more than 14 inches from the face of the work unless a guardrail system is erected along the front edge, or unless a personal fall arrest system is used as set forth in R 408.44501 et seq., except that the maximum distance from the face of the work for plastering and lathing operations shall be not more than 18 inches.

R 408.41221 Stilts.

Rule 1221. (1) A stilt shall be inspected for damage, wear, and corrosion. A defective stilt, including the pins and straps, shall be repaired or replaced before being placed in use.

(2) Stilts shall be used only if all of the following conditions exist:

(a) Floors are level.

(b) All floor holes are securely covered.

(c) When an employee is using stilts, the top edge height of the top rail, or equivalent member, shall be increased an amount equal to the height of the stilts.

(d) The floor is capable of supporting a load on the stilt's base plate without deformation of more than 1/4 of an inch.

(e) The floor is cleared of debris, materials, or liquids that could cause a slipping or tripping hazard.

- (3) Stilts shall not be used while going from one level to another.
- (4) An employee may wear stilts on a scaffold only if it is a large area scaffold.

R 408.41222 Wood pole scaffolds.

Rule 1222. (1) Where a pole of a wood pole scaffold is spliced, the ends shall be squared and the upper section shall rest squarely on the lower section. Wood splice plates shall be fastened on not less than 2 adjacent sides, shall be not less than 4 feet in length, shall overlap the abutted ends equally, shall have the same width and same total cross-sectional area of the pole, and shall be capable of preventing displacement of the abutted ends. Splice plates of other materials of equivalent strength may be used.

(2) A bearer shall be set with its greater end dimension vertical and shall be long enough to project over the ledgers not less than 3 inches for proper support.

(3) The inner end of a bearer for a single pole scaffold shall be supported in accordance with 1 of the following:

(a) Rest in a wall of a building with not less than a 40 inch bearing. Notching of the bearer is not permitted.

(b) Rest on a 12- by 2- by 6- inch wood block. The block shall be notched at the center to the width of the bearer and 2 inches deep. The bearer shall be nailed to both the block and the building.

(c) At a wall opening by a plank capable of supporting the loaded bearer and fastened to the building. The bearer shall be braced against displacement.

(4) A ledger shall be long enough to extend over 2 pole spaces. The ledger shall not be spliced between the poles. The ledger shall be reinforced by bearing blocks securely nailed to the side of the pole to form a support for the ledger.

(5) Diagonal bracing shall be provided to prevent the poles of a single pole scaffold from moving in a direction parallel with the wall of the building or from buckling.

(6) Bracing shall be provided between the inner and outer sets of poles in independent pole scaffolds. The free ends of pole scaffolds shall be cross braced.

(7) Full diagonal face bracing, in both directions, shall be erected across both faces of pole scaffold. The braces shall be spliced at the poles.

(8) Pole scaffolds over 60 feet in height shall be designed by a registered professional engineer, and shall be constructed and loaded in accordance with that design. Non-mandatory Appendix A to this standard contains examples of criteria that will enable an employer to comply with design and loading requirements for pole scaffolds under 60 feet in height.

R 408.41224 Tubular welded frame scaffolds (fabricated frame scaffold).

Rule 1224. (1) The scaffold shall be braced by cross bracing or diagonal braces, or both, for securing vertical members together laterally. The cross braces shall be of sufficient length so that the erected scaffold is always plumb, square, and rigid. All brace connections shall be made secure.

(2) The frames shall be placed one on top of the other with coupling or stacking pins to provide proper vertical alignment of the legs.

(3) Where uplift may occur, frames shall be locked together vertically by pins or other equivalent suitable means.

(4) A guy, tie, and brace shall be installed according to the scaffold manufacturer's recommendations or at the closest horizontal member to the 4 to 1 ratio height and be repeated vertically at locations of horizontal members every 20 feet (6.1 meters) or less thereafter for a scaffold 3 feet (0.91 meters) wide or less and every 26 feet (7.9 meters) or less thereafter for a scaffold more than 3 feet (0.91 meters) wide. The top guy, tie, or brace of a completed scaffold shall be placed no further than a 4-to-1 ratio height from the top. A guy, tie, and brace shall be installed at each end of the scaffold and at horizontal intervals of not more than 30 feet (9.1 meters) measured from one end, not both, towards the

other. Outriggers, when used, may be considered as part of the base dimension when installed on each corner of the long side at intervals of not more than 20 feet.

(5) Drawings and specifications for all tubular welded frame scaffolds over 125 feet in height above the base plates shall be designed by a qualified engineer who is knowledgeable in scaffolding. The plans shall be available at the jobsite.

(6) Brackets used to support cantilevered loads shall be in compliance with all of the following provisions:

(a) Be seated with side brackets parallel to the frames and end brackets at 90 degrees to the frames.

(b) Not be bent or twisted from the positions specified in subdivision (a) of this subrule.

(c) Be used only to support personnel, unless the scaffold has been designed for other loads by a qualified engineer and built to withstand the tipping forces caused by the other loads being placed on the bracket-supported section of the scaffold.

R 408.41225 Horse scaffolds.

Rule 1225. (1) Scaffolds shall not be constructed or arranged more than 2 tiers or 10 feet (3.0 m) in height, whichever is less.

(2) When horses are arranged in tiers, each horse shall be placed directly over the horse in the tier below.

(3) When horses are arranged in tiers, the legs of each horse shall be nailed down or otherwise secured to prevent displacement.

(4) When horses are arranged in tiers, each tier shall be crossbraced.

R 408.41226 Bricklayer's square scaffold.

Rule 1226. (1) Scaffolds made of wood shall be reinforced with gussets on both sides of each corner.

(2) Diagonal braces shall be installed on all sides of each square.

(3) Diagonal braces shall be installed between squares on the rear and front sides of the scaffold, and shall extend from the bottom of each square to the top of the next square.

(4) Scaffolds shall not exceed 3 tiers in height, and shall be so constructed and arranged that 1 square rests directly above the other. The upper tiers shall stand on a continuous row of planks laid across the next lower tier, and shall be nailed down or otherwise secured to prevent displacement.

R 408.41227 Pump jack scaffolds.

Rule 1227. (1) Pump jack brackets, braces, and accessories shall be fabricated from metal plates and angles. Each bracket shall have 2 positive gripping mechanisms to prevent any failure or slippage.

(2) A pole shall be in compliance with ~~all~~ both of the following provisions:

(a) Be secured to the structure by rigid triangular bracing, or equivalent, at the bottom, top, and other points as necessary to provide a maximum vertical spacing of not more than 10 feet between braces. Each brace shall be capable of supporting not less than 225 pounds tension or compression.

(b) Be made of 2, 2 by 4s of Douglas fir, or the equivalent, or 2 continuous lengths made of 2 by 4s spiked together, with the seam parallel to the bracket, with 10D common nails at not more than 12 inches center to center, staggered uniformly from opposite outside edges. Each 2 by 4 may be spliced to make up a pole if the splice is constructed to develop the full strength of the member.

(3) Where the bracket must pass bracing already installed, an extra brace shall be used approximately 4 feet above the one to be passed until the original brace is reinstalled.

(4) If poles are made of wood, then the pole lumber shall be straight-grained and free of shakes, large loose or dead knots, and other defects that might impair strength.

R 408.41228 Rescinded

R 408.41231 Adjustable multipoint suspension scaffolds.

Rule 1231. (1) Only wire rope shall be used for suspending an adjustable multipoint suspension scaffold.

(2) The steel shackles or clevises with which the wire ropes are attached to the outrigger beams shall be placed directly over the hoisting drums.

R 408.41232 Multipoint suspended scaffold.

Rule 1232. (1) A multipoint suspended scaffold shall be suspended from structural components that are capable of supporting 4 times the maximum intended load.

(2) A multipoint suspended scaffold shall be light- or medium-duty scaffold only.

(3) If wire rope is used for the suspension of a multipoint suspended scaffold, a minimum of 2 wraps around the supporting structural members and around put logs shall be used and secured with the proper number of wire rope clips or fist grips as prescribed in table 5 of R 408.41261 (5).

(4) Softeners shall be used to prevent damage to wire rope that is used for suspension.

R 408.41233 Two-point adjustable suspension scaffolds (swing stage scaffold).

Rule 1233. (1) A swing stage scaffold platform shall not be less than 20 inches nor more than 36 inches wide overall. The platform shall be securely fastened to the stirrups by U-bolts or by other equivalent means.

(2) The stirrups shall be designed with a support for a guardrail, intermediate rails, and toeboard.

(3) Rope and blocks that are used to support a 2-point adjustable scaffold shall have all of the following:

(a) Supporting ropes of 3/4-inch, first-quality manila rope or a synthetic rope of equivalent strength used with at least one 6-inch single and one 6-inch double block.

(b) Blocks that have sheaves which fit the size of the rope the blocks carry.

(c) Live ropes made fast to the scaffold in a manner to prevent displacement.

(d) The dead-end of the supporting rope connected to the block at the stirrup by means of an eye splice incorporating a thimble.

(4) A swing stage scaffold shall be limited to the following number of employees:

(a) For a scaffold designed for a working load of 500 pounds, not more than 2 employees shall be permitted to work at one time.

(b) For a scaffold designed for a working load of 750 pounds, not more than 3 employees shall be permitted to work at one time.

(5) Two or more scaffolds shall not be combined by bridging with planks or similar connecting links.

(6) Rollers or fenders shall be provided to prevent striking the building and to facilitate raising and lowering.

(7) The platform of a swing stage scaffold shall be 1 of the following types:

(a) Ladder-type platforms - The ladder-type platform shall be constructed to meet ANSI standard A10.8-1977 entitled "Scaffolding," which is adopted in these rules by reference and which may be inspected at the Lansing office of the department of licensing and regulatory affairs. The standard may be purchased at a cost as of the time of adoption of these rules of \$20.00 from the American National Standards Institute, 1430 Broadway, New York, New York 10018, or from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.

(b) Plank-type platform - The plank-type platform shall be composed of not less than two 2 by 10-inch unspliced planks which are laid straight and which are cleated together on the underside, with the cleats starting 6 inches from each end and spaced at 12-inch intervals.

(c) Beam-type platform - The beam platform shall have side stringers made of lumber that is not less than 2 by 6 inches set on edge. The span between hangers shall not be more than 12 feet. The flooring shall be supported on 2 by 6-inch crossbeams which are laid flat, which are set into the upper edge of the stringers with a snug fit at intervals of not more than 4 feet center to center, and which are securely nailed in place. The flooring shall be 1 by 6-inch lumber or 3/4-inch plywood and shall be securely nailed. Floorboards shall not be spaced more than 1/2 of an inch apart.

(d) Manufactured picks - When used, a manufactured pick shall conform to the requirements of R 408.41217 (2) and (3).

R 408.41234 Multilevel suspension scaffolds.

Rule 1234. (1) A multilevel suspension scaffold shall have a separate fall prevention device that allows a drop of not more than 12 inches installed at each support point connected with a line to the scaffold.

(2) The device shall be attached to a wire rope safety line equivalent to the support rope, and the safety line shall be secured to a substantial member of the structure separate from the support rope and to the ground. If it is not possible to attach a safety line to the structure, then the safety line shall be attached to the outrigger.

(3) The multilevel suspension scaffold shall be in compliance with the provisions of R 408.41229 and R 408.41233.

(4) A support for a platform shall be attached directly to the support stirrup and not to any other platform.

R 408.41235 Single-point adjustable suspension scaffolds.

Rule 1235. A single-point adjustable suspension scaffold shall travel only in a vertical line.

R 408.41236 Needle beam scaffolds.

Rule 1236. (1) A needle beam scaffold shall not be altered or moved while in use.

(2) The scaffold planking shall be secured against displacement. Cleats are not an adequate means of attachment.

(3) One end of a needle beam scaffold may be supported by and secured to a permanent structural member.

R 408.41237 Boatswain's chair.

Rule 1237. (1) Two 5/8-inch, first-quality manila rope slings or synthetic rope of equivalent strength shall be reeved through the 4 seat holes so as to cross each other on the underside. Where an employee is using a heat or spark-producing process, such as gas welding or cutting, a protected 3/8-inch wire rope shall be used in place of fiber rope.

(2) The tackle shall consist of bearing or bushed blocks and 5/8-inch, first grade manila rope or its equivalent. The block shall be secured to roof irons, hooks, or other objects that are secured. Tiebacks shall be installed at right angles to the face of the building and shall be secured to the roof hooks and the building.

R 408.41243 Rough terrain forklift truck scaffolds; equipment requirements; employee safety requirements.

Rule 1243. (1) The scaffold platform shall be attached to the forks by enclosed sleeves and shall be secured against the back of the forks with a mechanical device so that the platform cannot tip or slip.

(2) A work platform shall be in compliance with all of the following requirements:

(a) Except for the guardrail system as specified in construction safety standard Part 21. Guarding of Walking and Working Areas, R 408.42101 et seq. of the Michigan Administrative Code, be of welded mild steel construction that has a minimum safety factor of 4 times the maximum intended load.

(b) Have a continuous guardrail system constructed as follows:

(i) Have a top rail which is located not less than 36 inches, nor more than 42 inches, above the platform floor and which is constructed to withstand a minimum of 200 pounds of force in any direction.

(ii) Have a midrail which is installed at mid-height between the top rail and platform floor and which is constructed to withstand a 200-pound side thrust.

(iii) Have a toeboard which is not less than 4 inches in nominal height and which is installed not more than 1/4 of an inch above the floor around the periphery of the work platform. If the platform has a gate, then the toeboard shall be installed on the gate.

(c) Have a wood planking, steel plate, or a steel grating bolted or welded to the bottom of the platform and be maintained free of slip or trip hazards.

(d) Have a permanently affixed sign on the platform that specifies the maximum number of passengers allowed, the work platform identification number, and the maximum rated load.

(e) Be easily identifiable by high-visibility color or marking.

(3) The work platform shall be level when in use.

(4) If an employee is elevated in a platform on a variable reach lift truck, a personal fall arrest system, including the anchorage required in Part 45. Fall Protection, R 408.44501 et seq., of the Michigan Administrative Code and Part 6. Personal Protective Equipment, R408.40601 et seq., of the Michigan Administrative Code, is required and shall be worn when an employee is elevated.

(5) ~~-(40)~~ The rough terrain fork truck or the lift truck shall rest on firm footing. Leveling devices and outriggers shall be used where provided on equipment.

(6) A trained operator shall remain at the operator station of a lift truck to control the lift truck while an employee is elevated. The lift truck control or controls shall be in neutral and the parking brake set. The operator of the lift truck scaffold platform shall be able to see the elevated platform at all times.

(7) A lift truck platform shall be returned to the ground before a lift truck is repositioned. The forklift shall be moved as close to the work area as possible for final positioning. An employee shall exit the landed platform and reboard the platform only after the lift truck repositioning is completed.

(8) The combined mass weight of the platform, load, and the employee shall not be more than 1/3 of the rated capacity of the rough terrain forklift truck on which the platform is used.

(9) An employee shall maintain firm footing on the platform floor. Railings, planks, ladders, or other materials shall not be used on the platform to achieve reach or height.

(10) The guardrail system of the platform shall not be used to support any of the following:

(a) Materials.

(b) Other work platforms.

(c) Employees.

(11) The platform shall be lowered to ground level for an employee to enter or exit, except where elevated work areas are inaccessible or hazardous to reach. An employee may exit the platform with the knowledge and consent of the employer. When exiting to unguarded work areas, fall protection shall be provided and used as required in construction safety standard, Part 45. Fall Protection, being R 408.44501 et seq. of the Michigan Administrative Code. An employee shall not climb on any part of a lift truck when attempting to enter or exit the platform.

(12) A platform shall not be modified if the modification is detrimental to its safe use.

(13) Floor dimensions parallel to the truck longitudinal centerline shall not be more than 2 times the load center distance listed on the rough terrain forklift truck nameplate. The floor dimension width shall not be more than the overall width of the truck measured across the load-bearing tires plus 10 inches

(250 mm) on either side. The minimum space for each employee on the platform shall be not less than 18 inches (450 mm) in either direction.

(14) A wood pallet shall not be used as a platform for lift truck scaffolds.

(15) If arc welding is performed by an employee on the platform, then the electrode holders shall be protected from contact with the metal components of the work platform.

(16) A work platform shall not be used during high winds, electrical storms, snow, ice, sleet, or other adverse weather conditions that could affect the safety of the employees on the work platform or the operator of the truck.

R 408.41244 Rescinded.

R 408.41245 Operator training.

Rule 1245. An employer shall ensure that an employee has been trained before the employee's assignment as an operator of a rough terrain forklift truck that is used to elevate employees. An employee shall be trained in all of the following areas:

- (a) The capabilities of the equipment and its attachments.
- (b) The purpose, use, and limitations of the controls.
- (c) How to make daily checks.

R 408.41246 Rescinded.

R 408.41253 Roofing brackets and crawling boards.

Rule 1253. (1) A roofing bracket shall be installed in a manner to maintain a level working surface.

(2) In addition to the pointed metal projections, the brackets shall be secured in place by nailing. When it is impractical to nail brackets, rope supports shall be used. When rope supports are used, they shall consist of first-quality manila rope of at least 3/4-inch diameter or its equivalent.

(3) A crawling board shall not be less than 1 by 10 inches, shall extend from the eave to the ridge of the roof, and shall be secured against displacement.

R 408.41254 Carpenter's bracket scaffold.

Rule 1254. (1) Each bracket, except those for wooden bracket-form scaffolds, shall be attached to the supporting formwork or structure by means of 1 or more of the following:

- (a) Nails.
 - (b) A metal stud attachment device.
 - (c) Welding, hooking over a secured structural supporting member, with the form wales either bolted to the form or secured by snap ties or tie bolts extending through the form and securely anchored.
 - (d) For carpenters' bracket scaffolds only, by a bolt extending through to the opposite side of the structure's wall.
- (2) The supporting brackets shall be fastened to the structure by 1 of the following:
- (a) Three-eighths-inch diameter bolts extending through the studs at the top of the bracket and projecting 3/4 inch beyond the nut and washer when in place.
 - (b) Welding to a metal tank.
 - (c) Hooked over a secured supporting member of the structure.

R 408.41255 Form Scaffolds.

Rule 1255. Metal brackets that are an integral part of the form shall be bolted or welded to the form. A folding-type bracket shall be secured by bolts or locking pins when in the extended position. Clip-on

hook-on brackets may be used if the form walers are bolted to the form or secured by snap ties or shea-bolts extending through the form and anchored.

R 408.41256 Ladder jack scaffolds.

Rule 1256. (1) A ladder jack scaffold shall be used only for light duty on type I manufactured ladders at heights not more than 20 feet from the ground or floor level. The ladder shall be used as prescribed in Part 11. Fixed and Portable Ladders, R 408.41101 et seq. of the Michigan Administrative Code.

(2) All bearing points of a ladder jack shall be designed to bear on the side rails and the rungs, but if bearing on the rungs only, the bearing area shall be not less than 10 lineal inches per rung.

R 408.41261 Wire rope.

Rule 1261. (1) A wire rope shall be inspected for defects by a competent person before each work shift and after every occurrence could affect a rope's integrity. A rope shall be replaced if any of the following conditions exist:

- (a) Physical damage that impairs the function and strength of the rope.
 - (b) Kinks that might impair the tracking or wrapping of rope around the drum or sheaves.
 - (c) Six randomly distributed broken wires in 1 rope lay or 3 broken wires in 1 strand in 1 rope lay.
 - (d) Abrasion, corrosion, scrubbing, flattening, or peening that has caused the loss of more than 1/3 of the original diameter of the outside wires.
 - (e) Heat damage caused by a torch or any damage caused by contact with electrical wires.
 - (f) Evidence that the secondary brake has been activated during an overspeed condition and has engaged the suspension rope.
- (2) Wire rope that is bent to form an eye over a bolt or rod which has a diameter of less than 4 times the rope diameter shall be equipped with a metal thimble.
- (3) Swaged attachments or spliced eyes on wire suspension ropes shall not be used unless they are made by the wire rope manufacturer or a qualified person.
- (4) If wire rope clips are used on suspension scaffolds, then all of the following provisions apply:
- (a) Clips shall be installed according to the manufacturer's recommendations.
 - (b) Clips shall be retightened to the manufacturer's recommendations after the initial loading.
 - (c) Clips shall be inspected and retightened to the manufacturer's recommendations at the start of each work shift.
 - (d) U-bolt clips shall not be used at the point of suspension for any scaffold hoist.
 - (e) If U-bolt clips are used, then the U-bolt shall be placed over the dead end of the rope and the saddle shall be placed over the live end of the rope.
- (5) Wire rope shall not come in contact with sharp edges.

R 408.41262 Rescinded.

R 408.41263 Rescinded.

R 408.41264 Window jack scaffolds.

Rule 1264. (1) A window jack scaffold shall be used as a work platform for not more than 1 employee and only for the purpose of working at the window opening through which the jack is placed.

(2) A window jack shall not be used to support planks placed between one window jack and another or for other elements of scaffolding.

Non-mandatory Appendix A

This Appendix provides non-mandatory guidelines to assist employers in complying with the requirements of MIOSHA Construction Safety Standard Part 12. Scaffolds and Scaffold Platforms. An employer may use these guidelines and tables as a starting point for designing scaffold systems. However, the guidelines do not provide all the information necessary to build a complete system, and the employer is still responsible for designing and assembling these components in such a way that the completed system will meet the requirements of R 408.41210 (3), except as provided in R 408.41213 (1) and (2), R 408.41214 (4), R 408.41229 (1), and R 408.41229 (17). Scaffold components which are not selected and loaded in accordance with this Appendix, and components for which no specific guidelines or tables are given in this Appendix (e.g., joints, ties, components for wood pole scaffolds more than 60 feet in height, components for heavy-duty horse scaffolds, components made with other materials, and components with other dimensions, etc.) must be designed and constructed in accordance with the capacity requirements of R 408.41210 (3), except as provided in R 408.41213 (1) and (2), R 408.41214 (4), R 408.41229 (1), and R 408.41229 (17), and loaded in accordance with R 408.41229 (2).

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1. General Guidelines and Tables

(a) The following tables, and the tables in Part 2 -- Specific guidelines and tables, assume that all load-carrying timber members (except planks) of the scaffold are a minimum of 1,500 lb-f/in (2) (stress grade) construction grade lumber. All dimensions are nominal sizes as provided in the American Softwood Lumber Standards, dated January 1970, except that, where rough sizes are noted, only rough or undressed lumber of the size specified will satisfy minimum requirements.

(b) Solid sawn wood used as scaffold planks shall be selected for such use following the grading rules established by a recognized lumber grading association or by an independent lumber grading inspection agency. Such planks shall be identified by the grade stamp of such association or agency. The association or agency and the grading rules under which the wood is graded shall be certified by the Board of Review, American Lumber Standard Committee, as set forth in the American Softwood Lumber Standard of the U.S. Department of Commerce.

(i) Allowable spans shall be determined in compliance with the National Design Specification for Wood Construction published by the National Forest Products Association; paragraph 5 of ANSI A10.8-1988 Scaffolding-Safety Requirements published by the American National Standards Institute; or for 2-x 10-inch (nominal) or 2-x 9-inch (rough) solid sawn wood planks, as shown in the following table:

Maximum intended nominal load (lb/ft (2))	Maximum permissible span using full thickness undressed lumber (ft)	Maximum permissible span using nominal thickness lumber (ft)
25	10	8
50	8	6
75	6	

(ii) The maximum permissible span for 1 1/4 x 9-inch or wider wood plank of full thickness with a maximum intended load of 50 lb/ft. (2) shall be 4 feet.

(c) Fabricated planks and platforms may be used in lieu of solid sawn wood planks. Maximum spans for such units shall be as recommended by the manufacturer based on the maximum intended load being calculated as follows:

Rated load capacity	Intended load
Light-duty	* 25 pounds per square foot applied uniformly over the entire span area.
Medium-duty	* 50 pounds per square foot applied uniformly over the entire span area.
Heavy-duty	* 75 pounds per square foot applied uniformly over the entire span area.
One-person	* 250 pounds placed at the center of the span (total 250 pounds).
Two-person	* 250 pounds placed 18 inches to the left and

	right of the center of the span (total 500 pounds).
Three-person	* 250 pounds placed at the center of the span and 250 pounds placed 18 inches to the left and right of the center of the span (total 750 pounds).

Note: Platform units used to make scaffold platforms intended for light-duty use shall be capable of supporting at least 25 pounds per square foot applied uniformly over the entire unit-span area, or a 250-pound point load placed on the unit at the center of the span, whichever load produces the greater shear force.

(d) Guardrails shall be as follows:

(i) Toprails shall be equivalent in strength to 2-inch by 4-inch lumber; or 1 ¼-inch x 1/8-inch structural angle iron; or 1-inch x .070-inch wall steel tubing; or 1.990-inch x .058-inch wall aluminum tubing.

(ii) Midrails shall be equivalent in strength to 1-inch by 6-inch lumber; or 1 ¼-inch x 1 ¼-inch x 1/8-inch structural angle iron; or 1-inch x .070-inch wall steel tubing; or 1.990-inch x .058-inch wall aluminum tubing.

(iii) Toeboards shall be equivalent in strength to 1-inch by 4-inch lumber; or 1 ¼-inch x 1 ¼-inch structural angle iron; or 1-inch x .070-inch wall steel tubing; or 1.990-inch x .058-inch wall aluminum tubing.

(iv) Posts shall be equivalent in strength to 2-inch by 4-inch lumber; or 1 ¼-inch x 1 ¼-inch x 1/8-inch structural angle iron; or 1-inch x .070-inch wall steel tubing; or 1.990-inch x .058-inch wall aluminum tubing.

(v) Distance between posts shall not exceed 8 feet.

(e) Overhead protection shall consist of 2-inch nominal planking laid tight, or 3/4-inch plywood.

(f) Screen installed between toeboards and midrails or top rails shall consist of No. 18 gauge U.S. Standard wire one inch mesh.

2. Specific guidelines and tables.

(a) Pole Scaffolds.

Single Pole Wood Pole Scaffolds

	Light duty up to 20 feet high	Light duty up to 60 feet high	Medium duty up to 60 feet high	Heavy duty up to 60 feet high
Maximum intended load (lbs/ft ²)	25	25	50	75
Poles or uprights	2x4 in.	4x4 in.	4x4 in.	4x6 in.
Maximum pole	6 feet	10 feet	8 feet	6 feet

spacing (longitudinal)				
Maximum pole spacing (transverse)	5 feet	5 feet	5 feet	5 feet
Runners	1x4 in.	1 ¼ x 9 in.	2x10 in.	2x10 in.
Bearers and maximum spacing of bearers:				
3 feet	2x4 in.	2x4 in.	2x10 in. or 3x4 in.	2x10 in. or 3x5 in.
5 feet	2x6 in. or 3x4 in.	2x6 in. or 3x4 in. (rough)	2x10 in. or 3x4 in.	2x10 in. or 3x5 in.
6 feet			2x10 in. or 3x4 in.	2x10 in. or 3x5 in.
8 feet			2x10 in. or 3x4 in.	
Planking	1 ¼ x 9 in.	2x10 in.	2x10 in.	2x10 in.
Maximum vertical spacing of horizontal members	7 feet	9 feet	7 feet	6 ft. 6 in.
Bracing horizontal	1x4 in.	1x4 in.	1x6 in. or 1 ¼ x 4 in.	2x4 in.
Bracing diagonal	1x4 in.	1x4 in.	1x4 in.	2x4 in.
Tie-ins	1x4 in.	1x4 in.	1x4 in.	1x4 in.

Note: All members except planking are used on edge. All wood bearers shall be reinforced with 3/16-x 2-inch steel strip, or the equivalent, secured to the lower edges for the entire length of the bearer.

Independent Wood Pole Scaffolds

	Light duty up to 20 feet high	Light duty up to 60 feet high	Medium duty up to 60 feet high	Heavy duty up to 60 feet high
Maximum intended load	25 lbs/ft ²	25 lbs/ft ²	50 lbs/ft ²	75 lbs/ft ²
Poles or uprights	2x4 in.	4x4 in.	4x4 in.	4x4 in.
Maximum pole spacing (longitudinal)	6 feet	10 feet	8 feet	6 feet
Maximum (transverse)	6 feet	10 feet	8 feet	8 feet
Runners	1 ¼ x4 in.	1 ¼ x 9 in.	2x10 in.	2x10 in.
Bearers and maximum spacing or bearers:				
3 feet	2x4 in.	2x4 in.	2x10 in.	2x10 in. (rough).
6 feet	2x6 in. or	2x10 in. (rough)	2x10 in.	2x10 in.

	3x4 in.	or 3x8 in.		(rough).
8 feet	2x6 in. or 3x4 in.	2x10 in. (rough) or 3x8 in.	2x10 in. or 3x4 in.	
10 feet	2x6 in. or 3x4 in.	2x10 in. (rough) or 3x3 in.		
Planking	1 ¼ x 9 in.	2x10 in.	2x10 in.	2x10 in.
Maximum vertical spacing of horizontal members	7 feet	7 feet	6 feet	6 feet
Bracing horizontal	1x4 in.	1x4 in.	1x6 in. or 1 ¼ x 4 in.	2x4 in.
Bracing diagonal	1x4 in.	1x4 in.	1x4 in.	2x4 in.
Tie-ins	1x4 in.	1x4 in.	1x4 in.	1x4 in.

Note: All members except planking are used on edge. All wood bearers shall be reinforced with 3/16-x 2-inch steel strip, or the equivalent, secured to the lower edges for the entire length of the bearer.

(b) Tube and coupler scaffolds.

Minimum Size of Members

	Light Duty	Medium Duty	Heavy Duty
Maximum intended load	25 lbs/ft ²	50 lbs/ft ²	75 lbs/ft ²
Posts, runners and braces	Nominal 2 in. (1.90 inches) OD steel tube or pipe	Nominal 2 in. (1.90 inches) OD steel tube or pipe.	Nominal 2 in. (1.90 inches) OD steel tube or pipe.
Bearers	Nominal 2 in. (1.90 inches) OD steel tube or pipe and a maximum post spacing of 4 ft.x10 ft.	Nominal 2 in. (1.90 inches) OD steel tube or pipe and a maximum post spacing of 4 ft.x7 ft. or, Nominal 2 ½ in. (2.375 in.) OD steel tube or pipe and a maximum post spacing of 6 ft.x8 ft.*	Nominal 2 ½ in. (2.375 in.) OD steel tube or pipe and a maximum post spacing of 6 ft.x6 ft.
Maximum runner spacing vertically	6 ft. 6 in.	6 ft. 6 in.	6 ft. 6 in.

*Bearers shall be installed in the direction of the shorter dimension.

Note: Longitudinal diagonal bracing shall be installed at an angle of 45 deg. (+/- 5 deg.).

Maximum Number of Planked Levels

Number of working levels:	Maximum number of additional planked levels			Maximum height of scaffold (in feet)
	Light duty	Medium	Heavy duty	

		duty		
1	16	11	6	125
2	11	1	0	125
3	6	0	0	125
4	1	0	0	125

(c) "Fabricated frame scaffolds." Because of their prefabricated nature, no additional guidelines or tables for these scaffolds are being adopted in this Appendix.

(d) "Plasterers', decorators', and large area scaffolds." The guidelines for pole scaffolds or tube and coupler scaffolds (Appendix A (a) and (b)) may be applied.

(e) "Bricklayers' square scaffolds."

Maximum intended load: 50 lb/ft. (2) (*)

Maximum width: 5 ft.

Maximum height: 5 ft.

Gussets: 1 x 6 in.

Braces: 1 x 8 in.

Legs: 2 x 6 in.

Bearers (horizontal members): 2 x 6 in.

Footnote (*) The squares shall be set not more than 8 feet apart for light duty scaffolds and not more than 5 feet apart for medium duty scaffolds.

(f) Horse scaffolds.

Maximum intended load (light duty): 25 lb/ft. (2) (**)

Maximum intended load (medium duty): 50 lb/ft. (2) (**)

Footnote (**) Horses shall be spaced not more than 8 feet apart for light duty loads, and not more than 5 feet apart for medium duty loads.

Horizontal members or bearers:

Light duty: 2 x 4 in.

Medium duty: 3 x 4 in.

Legs: 2 x 4 in.

Longitudinal brace between legs: 1 x 6 in.

Gusset brace at top of legs: 1 x 8 in.

Half diagonal braces: 2 x 4 in.

(g) "Form scaffolds and carpenters' bracket scaffolds."

(1) Brackets shall consist of a triangular-shaped frame made of wood with a cross-section not less than 2 inches by 3 inches, or of 1 ¼-inch x 1 ¼-inch x 1/8-inch structural angle iron.

(2) Bolts used to attach brackets to structures shall not be less than 5/8 inches in diameter.

(3) Maximum bracket spacing shall be 8 feet on centers.

(4) No more than two employees shall occupy any given 8 feet of a bracket or form scaffold at any one time. Tools and materials shall not exceed 75 pounds in addition to the occupancy.

(5) Wooden figure-four scaffolds:

Maximum intended load: 25 lb/ft. (2)

Uprights: 2 x 4 in. or 2 x 6 in.

Bearers (two): 1 x 6 in.

Braces: 1 x 6 in.

Maximum length of bearers (unsupported): 3 ft. 6 in.

(i) Outrigger bearers shall consist of 2 pieces of 1-x 6-inch lumber nailed on opposite sides of the vertical support.

(ii) Bearers for wood figure-four brackets shall project not more than 3 feet 6 inches from the outside of the form support, and shall be braced and secured to prevent tipping or turning. The knee or angle brace shall intersect the bearer at least 3 feet from the form at an angle of approximately 45 degrees, and the lower end shall be nailed to a vertical support.

(6) Metal bracket scaffolds:

Maximum intended load: 25 lb/ft. (2)

Uprights: 2 x 4 inch

Bearers: As designed.

Braces: As designed.

(7) Wood bracket scaffolds:

Maximum intended load: 25 lb/ft. (2)

Uprights: 2 x 4 in or 2 x 6 in

Bearers: 2 x 6 in

Maximum scaffold width: 3 ft 6 in

Braces: 1 x 6 in

(h) "Roof bracket scaffolds." No specific guidelines or tables are given.

(i) "Outrigger scaffolds (single level)." No specific guidelines tables are given.

(j) "Pump jack scaffolds." Wood poles shall not exceed 30 feet in height. Maximum intended load -- 500 lbs between poles; applied at the center of the span. Not more than 2 employees shall be on a pump jack scaffold at one time between any two supports. When 2 x 4's are spliced together to make a 4-x 4-inch wood pole, they shall be spliced with "10 penny" common nails no more than 12 inches center to center, staggered uniformly from the opposite outside edges.

(k) "Ladder jack scaffolds." Maximum intended load -- 25 lb/ft (2). However, not more than 2 employees shall occupy any platform at any one time. Maximum span between supports shall be 8 feet.

(l) "Window jack scaffolds." Not more than 1 employee shall occupy a window jack scaffold at any one time.

(m) "Crawling boards (chicken ladders)." Crawling boards shall be not less than 10-inches wide and 1-inch thick, with cleats having a minimum 1-x 1 ½-inch cross-sectional area. The cleats shall be equal in length to the width of the board and spaced at equal intervals not to exceed 24 inches.

(n) "Step, platform, and trestle ladder scaffolds." No additional guidelines or tables are given.

(o) "Single-point adjustable suspension scaffolds." Maximum intended load -- 250 lbs. Wood seats for boatswains' chairs shall be not less than 1-inch thick if made of non-laminated wood, or 5/8-inches thick if made of marine quality plywood.

(p) "Two-point adjustable suspension scaffolds." (1) In addition to direct connections to buildings (except window cleaners' anchors) acceptable ways to prevent scaffold sway include angulated roping and static lines. Angulated roping is a system of platform suspension in which the upper wire rope sheaves or suspension points are closer to the plane of the building face than the corresponding attachment points on the platform, thus causing the platform to press against the face of the building. Static lines are separate ropes secured at their top and bottom ends closer to the plane of the building face than the outermost edge of the platform. By drawing the static line taut, the platform is drawn against the face of the building.

(2) On suspension scaffolds designed for a working load of 500 pounds, no more than 2 employees shall be permitted on the scaffold at one time. On suspension scaffolds with a working load of 750 pounds, no more than 3 employees shall be permitted on the scaffold at one time.

(3) Ladder-type platforms. The side stringer shall be of clear straight-grained spruce. The rungs shall be of straight-grained oak, ash, or hickory, at least 1 1/8 inches in diameter, with 7/8-inch tenons mortised into the side stringers at least 7/8 inch. The stringers shall be tied together with tie rods not less than 1/4 inch in diameter, passing through the stringers and riveted up tight against washers on both ends. The flooring strips shall be spaced not more than 5/8 inch apart, except at the side rails where the space may be 1 inch. Ladder-type platforms shall be constructed in accordance with the following table:

Schedule for Ladder-Type Platforms

Length of Platform	12 feet	14 & 16 feet	18 & 20 feet
Side stringers, minimum cross section (finished sizes):			
At ends	1 ¾ x 2 ¾ in.	1 ¾ x 2 ¾ in.	1 ¾ x 3 in.
At middle	1 ¾ x 3 ¾ in.	1 ¾ x 3 ¾ in.	1 ¾ x 4 in.
Reinforcing strip (minimum)	A 1/8-x 7/8-inch steel reinforcing strip shall be attached to the side or underside, full length.		
Rungs	Rungs shall be 1 1/8-inch minimum diameter with at least 7/8-inch diameter tenons, and the maximum spacing shall be 12 inches to center.		

Tie rods:			
Number (minimum)	3	4	4
Diameter (minimum)	¼ inch	¼ inch	¼ inch
Flooring, minimum finished size	½ x 2 ¾ in.	½ x 2 ¾ in.	½ x 2 ¾ in.

Schedule for Ladder-Type Platforms

Length of Platform	22 & 24 feet	28 & 30 feet
Side stringers, minimum cross section (finished sizes):		
At ends	1 ¾ x 3 in.	1 ¾ x 3 ½ in.
At middle	1 ¾ x 4 ¼ in.	1 ¾ x 5 in.
Reinforcing strip (minimum)	A 1/8-x 7/8-inch steel reinforcing strip shall be attached to the side or underside, full length.	
Rungs	Rungs shall be 1 1/8-inch minimum diameter with at least 7/8-inch diameter tenons, and the maximum spacing shall be 12 inches to center.	
Tie rods:		
Number (minimum)	5	6
Diameter (minimum)	¼ inch	¼ inch
Flooring, minimum finished size	½ x 2 ¾ in.	½ x 2 ¾ in.

(4) Plank-Type Platforms. Plank-type platforms shall be composed of not less than nominal 2-x 8-inch unspliced planks, connected together on the underside with cleats at intervals not exceeding 4 feet, starting 6 inches from each end. A bar or other effective means shall be securely fastened to the platform at each end to prevent the platform from slipping off the hanger. The span between hangers for plank-type platforms shall not exceed 10 feet.

(5) Beam-Type Platforms. Beam platforms shall have side stringers of lumber not less than 2-x 6-inches set on edge. The span between hangers shall not exceed 12 feet when beam platforms are used. The flooring shall be supported on 2-x 6-inch cross beams, laid flat and set into the upper edge of the stringers with a snug fit, at intervals of not more than 4 feet, securely nailed to the cross beams. Floorboards shall not be spaced more than 1/2 inch apart.

(q) (1) "Multi-point adjustable suspension scaffolds and stonsetters' multi-point adjustable suspension scaffolds." No specific guidelines or tables are given for these scaffolds.

(q) (2) "Masons' multi-point adjustable suspension scaffolds." Maximum intended load -- 50 lb/ft (2). Each outrigger beam shall be at least a standard 7-inch, 15.3 pound steel I-beam, at least 15 feet long. Such beams shall not project more than 6 feet 6 inches beyond the bearing point. Where the overhang exceeds 6 feet 6 inches, outrigger beams shall be composed of stronger beams or multiple beams.

(r) "Catenary scaffolds."

(1) Maximum intended load -- 500 lbs.

- (2) Not more than 2 employees shall be permitted on the scaffold at one time.
 - (3) Maximum capacity of come-along shall be 2,000 lbs.
 - (4) Vertical pickups shall be spaced not more than 50 feet apart.
 - (5) Ropes shall be equivalent in strength to at least 1/2 inch (1.3 cm) diameter improved plow steel wire rope.
- (s) "Float (ship) scaffolds."
- (1) Maximum intended load -- 750 lbs.
 - (2) Platforms shall be made of 3/4-inch plywood, equivalent in rating to American Plywood Association Grade B-B, Group I, Exterior.
 - (3) Bearers shall be made from 2-x 4-inch, or 1-x 10-inch rough lumber. They shall be free of knots and other flaws.
 - (4) Ropes shall be equivalent in strength to at least 1-inch (2.5 cm) diameter first grade manila rope.
- (t) Interior hung scaffolds.
- Bearers (use on edge): 2 x 10 in.
Maximum intended load: Maximum span
25 lb/ft. (2): 10 ft.
50 lb/ft. (2): 10 ft.
75 lb/ft. (2): 7 ft.
- (u) "Needle beam scaffolds."
- Maximum intended load: 25 lb/ft. (2)
Beams: 4 x 6 in.
Maximum platform span: 8 ft.
Maximum beam span: 10 ft.
- (1) Ropes shall be attached to the needle beams by a scaffold hitch or an eye splice. The loose end of the rope shall be tied by a bowline knot or by a round turn and a half hitch.
 - (2) Ropes shall be equivalent in strength to at least 1-inch (2.5 cm) diameter first grade manila rope.
- (v) "Multi-level suspension scaffolds." No additional guidelines or tables are being given for these scaffolds.
- (w) "Mobile Scaffolds." Stability test as described in the ANSI A92 series documents, as appropriate for the type of scaffold, can be used to establish stability for the purpose of 1926.452 (w) (6).
- (x) "Repair bracket scaffolds." No additional guidelines or tables are being given for these scaffolds.

(y) "Stilts." No specific guidelines or tables are given.

(z) "Tank builder's scaffold."

(1) The maximum distance between brackets to which scaffolding and guardrail supports are attached shall be no more than 10-feet 6-inches.

(2) Not more than 3 employees shall occupy a 10-feet 6-inch span of scaffold planking at any time.

(3) A taut wire or synthetic rope supported on the scaffold brackets shall be installed at the scaffold plank level between the innermost edge of the scaffold platform and the curved plate structure of the tank shell to serve as a safety line in lieu of an inner guardrail assembly where the space between the scaffold platform and the tank exceeds 12 inches (30.48 cm). In the event the open space on either side of the rope exceeds 12 inches (30.48 cm), a second wire or synthetic rope appropriately placed, or guardrails in accordance with 1926.451 (e) (4), shall be installed in order to reduce that open space to less than 12 inches (30.48 cm).

(4) Scaffold planks of rough full-dimensioned 2-inch (5.1 cm) x 12-inch (30.5 cm) Douglas Fir or Southern Yellow Pine of Select Structural Grade shall be used. Douglas Fir planks shall have a fiber stress of at least 1900 lb/in (2) (130,929 n/cm (2)) and a modulus of elasticity of at least 1,900,000 lb/in (2) (130,929,000 n/cm (2)), while Yellow Pine planks shall have a fiber stress of at least 2500 lb/in (2) (172,275 n/cm (2)) and a modulus of elasticity of at least 2,000,000 lb/in (2) (137,820,000 n/cm (2)).

(5) Guardrails shall be constructed of a taut wire or synthetic rope, and shall be supported by angle irons attached to brackets welded to the steel plates. These guardrails shall comply with 1926.451 (e) (4). Guardrail supports shall be located at no greater than 10-feet 6-inch intervals.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION SAFETY STANDARDS

Filed with the Secretary of State on April 5, 2013

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 19 and 21 of 1974 PA 154, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.40732, R 408.40733, R 408.40741, R 408.40743, R 408.40755, R 408.40759, and R 408.40799, of the Michigan Administrative Code are amended, and R 408.40756 is rescinded, as follows:

PART 27. BLASTING AND USE OF EXPLOSIVES

R 408.42732 Permit to handle, transport, and use explosives; requirements.

Rule 2732. (1) A blaster shall obtain a permit to handle, transport, and use explosives issued by the employer.

(2) A permit shall contain, at a minimum, all of the following information:

(Name of Employer)	(Title)
(Name of Employee)	(Employee Signature)
<p>“The above employee has received training in the handling, transportation, and use of explosives and applicable rules as required by the Michigan Construction Safety Standard, Part 27 Blasting and Use of Explosives.”</p> <p>RESTRICTIONS: (list)</p> <p>DATE ISSUED: _____</p> <p>EXPIRATION DATE: _____ (not to exceed 3 years)</p>	

R 408.42733 Blaster supervision of the storage, transportation, and use of explosives required; trainee supervision.

Rule 2733. (1) The storage, transportation, and use of an explosive material shall be directed and supervised by a competent employee who is experienced in the storage, transportation, and use of explosives. A person who is experienced in this field shall be known as a blaster.

(2) A trainee in the use of an explosive shall work under the direct supervision of the blaster.

R 408.42741 Transport of explosives; vehicles.

Rule 2741. (1) The storage compartment of a vehicle that is used for the transportation of more than 6,000 pounds of explosives shall be entirely enclosed and without windows. The doors of the storage compartment shall be equipped with strong hinges that are securely bolted on the inside and shall be provided with a padlock, which shall be kept locked when an explosive is carried in the vehicle. The entire vehicle body shall be constructed so that bolts, screws, nails, or any metal does not protrude on the inside of the vehicle.

(2) A vehicle that transports an explosive shall have signs which read “EXPLOSIVES” on all 4 sides and which have letters that are not less 5 inches high and white on a red background or shall have signs that conform to the provisions of 49 C.F.R. §§100 to 177, as adopted by reference in R 408.42799(2).

(3) A vehicle that transports an explosive shall be equipped with a portable fire extinguisher which does not have less than a 2A10-BC rating and which is in operable condition. The vehicle driver shall be trained in the use of fire extinguishers.

(4) A vehicle that is used to transport an explosive shall not be left unattended.

(5) A vehicle that is used to transport an explosive shall be capable of carrying the imposed load and shall be in good mechanical condition. The imposed load shall not be more than the rated capacity of the vehicle.

(6) A vehicle that carries an explosive shall not be taken inside a garage or shop for repairs or servicing, except for emergency repairs under the blasters supervision.

(7) An explosive shall not be transported in any form of trailer, except pursuant to the provisions of 49 C.F.R. §§100 to 177, as adopted by reference in R 408.42799(2).

(8) Auxiliary lights that are powered by a conveyance's electrical system shall not be installed on a conveyance that is used to transport explosives underground.

(9) Trucks that are used to transport explosives underground shall have the electrical system checked weekly to detect any failures which may constitute an electrical hazard. A certification record that includes all of the following information with respect to an inspected truck shall be prepared and the most recent certification record shall be maintained on file at the site:

- (a) The date of the inspection.
- (b) The signature of the person who performed the inspection.
- (c) A serial number or other identifier.

R 408.42743 Vertical transport of explosives.

Rule 2743. When transporting an explosive vertically, all of the following provisions shall be complied with:

- (a) The explosive shall be hoisted and lowered in a closed original container or class D magazine on a cage or hoisting platform.
- (b) The container or magazine shall be placed on a wooden floor of the cage or platform.
- (c) Other materials shall not be permitted in the same cage or shaft conveyance.
- (d) An employee shall not be permitted in a shaft or hoistway, nor within 100 feet of the hoistway, during the time an explosive is being transported in the shaft or hoistway.
- (e) The hoist or crane operator shall be notified before the loading and unloading of explosives.

R 408.42755 Safety fuse.

Rule 2755. (1) A cap crimper shall be used for attaching a blasting cap to a safety fuse. The crimper shall be in good condition and shall be accessible for use.

(2) When preparing a safety fuse, the blaster shall do all of the following:

- (a) Cut a short piece from the end on the supply reel to assure a fresh cut end of the safety fuse.
- (b) Assure that the fuse is not less than 3 feet in length.
- (c) Compute the burning rate of the fuse in relation to the distance from a place of safety.
- (d) Reject a damaged fuse and dispose of it as prescribed in R 408.42737
- (e) Cut fuse squarely across with a clean sharp blade.

(3) An employer or employee shall not carry a detonator or primer on their person.

(4) Not more than 12 fuses shall be lighted by a blaster when hand-lighting devices are used, except that if 2 or more safety fuses in a group are lighted by means of an ignition cord or other fuse-lighting device, the group may be counted as 1 fuse.

(5) The drop fuse method of dropping or pushing a primer or explosive with a lighted fuse is not permitted.

(6) The hanging of a fuse on a nail or other projection which would cause a sharp bend is not permitted.

(7) A fuse shall not be capped, and a primer shall not be made up, in a magazine or near a possible source of ignition.

(8) Not less than 2 employees shall be present when multiple cap or fuse blasting is done by the hand-lighting method.

(9) A cap and fuse shall not be used for firing a mudcap charge unless the charge is sufficiently separated to prevent 1 charge from dislodging other shots in the blast.

R 408.42756 Rescinded.

R 408.42759 Misfires.

Rule 2759. (1) If a misfire is found, both of the following requirements shall be complied with:

(a) The blaster shall immediately report this misfire to his or her supervisor and shall prevent all employees from entering the area, except for his or her helper.

(b) A new primer shall be inserted and the hole shall be reblasted. If this procedure might present a hazard, the explosive shall be washed out with water or blown out with oil-entrained air.

(2) If a misfire occurs while using a fuse arrangement, all employees shall be prevented from entering the area for a period of not less than 1 hour. The blaster shall then enter the area for inspection purposes and shall follow the procedures set forth in subrule (1) of this rule, if necessary.

(3) Drilling, digging, or picking is not permitted until all holes that contain unexploded charges have been detonated or removed.

R 408.42799 Referenced standards.

Rule 2799. (1) The Commerce in Explosives, 27 C.F.R. Part 181, April, 1979, established by the United States Bureau of Alcohol, Tobacco, Firearms and Explosives is adopted by reference, at a cost as of the time of adoption of these rules of \$67.00.

(2) The provisions of 49 C.F.R. Parts §100 to 177, established by the United States Department of Transportation, are adopted by reference, at a cost as of the time of adoption of these rules of \$70.00.

(3) The United States regulations adopted by reference in subrules (1) and (2) of these rules are available from the United States Government Bookstore via the internet at website www.bookstore.gpo.gov, at a cost as of the time of adoption of these rules as stated in these subrules.

(4) This standard is adopted by reference in these rules, The Institute of Makers of Explosives publication no. 20 “Radio Frequency Energy—A Potential Hazard in the Use of Electric Blasting Caps,” 1978 edition. This standard is available from The Institute of Makers of Explosives, 1120 19th Street, NW, Suite 310, Washington, DC 20036-3605, USA, telephone number: 1-202-429-9280 or via the internet at website: www.ime.org; at a cost as of the time of adoption of these rules of \$1.00.

(5) This standard is adopted by reference in these rules, Section F-2603.0, Storage of Explosives, of article 27 of the BOCA Basic Fire Prevention Code—1984 edition. This standard is available from the International Code Council (ICC), 4051 West Flossmoor Road, Country Club Hills, Illinois, USA, 60478, telephone number: 1-800-786-4452 or via the internet at website: www.iccsafe.org; at a cost as of the time of adoption of these rules of \$200.00.

(6) This standard is adopted by reference in these rules, National Fire Protection Association (NFPA) standard NFPA 495 ‘Code for the Manufacture Transportation Storage and Use of Explosives and Blasting Agents,’ 1982 edition. This standard is available from NFPA, 1 Batterymarch Park, Quincy, Massachusetts, USA, 02169-7471, telephone number: 1-617-770-3000 or via the internet at website: www.nfpa.org; at a cost as of the time of adoption of these rules of \$27.00.

(7) The standards adopted in subrules (1), (2), (4), (5) and (6) of this rule are also available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909-8143.

(8) Copies of the standards adopted in subrules (1), (2), (4), (5), and (6) of this rule may be obtained from the publisher or may also be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in subrule (1), (2), (4), (5), and (6) of this rule, plus \$20.00 for shipping and handling.

(9) The following Michigan occupational safety and health standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of licensing and regulatory affairs, MIOSHA standards section, 7150 Harris Drive, P.O. Box 30643, Lansing, MI,

48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) Construction Safety Standard Part 10 “Lifting and Digging Equipment,” R 408.41001a to R 408.41099a.

(b) Construction Safety Standard Part 14 “Tunnels, Shafts, Caissons, and Cofferdams,” R 408.41401 to R 408.41483.

(c) Construction Safety Standard Part 22 “Signals, Signs, Tags, and Barricades,” R 408.42201 to R 408.42243.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

OCCUPATIONAL HEALTH STANDARDS

Proposed Draft September 12, 2012

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 14 and 24 of 1974 PA 154, MCL 408.1014 and 408.1024; and Executive Reorganization Order Nos. 1996-1, 1996-2, 2003-1, 2008-4, and 2011-4, 330.3101, 445.2001, 445.2011, 445.2025, and 445.2030.)

R 325.51139 is amended to the Michigan Administrative code and R 325.51143 is rescinded as follows:

PART 511. TEMPORARY LABOR CAMPS

R 325.51139 Construction and operation of kitchens, dining halls, and feeding facilities.

Rule 9. (1) In all camps where central dining or multiple family feeding operations are permitted or provided, the food handling facilities shall comply with the requirements of the United States Health and Human Services, Food and Drug Administration, Food Code, 2005 Edition. A copy of the Food Code may be obtained in either of the following ways:

(a) At no cost from the United States Health and Human Services, Food and Drug Administration, via the website: www.fda.gov.

(b) From the United States Department of Commerce, National Technical Information Service, 6301 Shawnee Road, Alexandria, Virginia, 22312, USA, Phone: 1-888-584-8332 or via the website: www.ntis.gov/, at a cost of \$59.00 at the time of adoption of these rules.

(2) The standards adopted in subrule (1) of this rule are also available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(3) Copies of the standard adopted in subrule (1) of this rule may be obtained from the publisher or may also be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(4) A properly constructed kitchen and dining hall adequate in size, separate from the sleeping quarters of any of the workers or their families, shall be provided in connection with all food handling facilities. There shall be no direct opening from living or sleeping quarters into a kitchen or dining hall.

(5) No person with any communicable disease shall be employed or permitted to work in the preparation, cooking, serving, or other handling of food, foodstuffs, or materials used therein, in any kitchen or dining room operated in connection with a camp or regularly used by persons living in a camp.

R 325.51143 Rescinded

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY STANDARDS

Filed with the Secretary of State on April 5, 2013

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154 and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.12712, R 408.12716, R 408.12740, R 408.12773, R 408.12774, R 408.12781, R 408.12791 of the Michigan Administrative Code are amended, and R 408.12702 is added, and R 408.12779 and R 408.12799 are rescinded, as follows:

PART 27. WOODWORKING MACHINERY

R 408.12702. Referenced standards.

Rule 2702. The following Michigan occupational safety and health standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of licensing and regulatory affairs, MIOSHA standards section, 7150 Harris Drive, P.O. Box 30643, Lansing, MI, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) General Industry Safety Standard Part 2 'Floor and Wall Openings, Stairways, and Skylights,' R 408.10201 to R 408.40241.

(b) General Industry Safety Standard Part 7 'Guards for Power Transmission,' R 408.10701 to R 408.10765.

R 408.12712. Plant layout; floors and aisles.

Rule 2712. An aisle for powered traffic moving in 1 direction at a time shall be not less than the width of the widest vehicle or load plus 3 feet. An aisle for powered traffic moving in 2 directions at a time shall be not less than twice the width of the widest vehicle or load plus 3 feet. Lines shall be painted on the floor, or a similar method used to mark an aisle. This rule applies to an aisle in a new layout after November 15, 1971. An existing aisle shall comply with this rule by January 1, 1973.

R 408.12716. Machines and equipment; controls.

Rule 2716. (1) A machine shall have a mechanical or electrical power control to permit the operator to cut off the power from the machine without leaving his or her position at the work station.

(2) A woodworking machine shall not automatically restart upon restoration of power after a power failure. A machine wired to a 110 volt line before November 15, 1971, is excepted from this rule.

(3) Operating controls shall be located within reach of the operator while the operator is at his or her regular work station, making it unnecessary to reach over the cutters. The controls shall be installed to eliminate the danger of accidental activation. This subrule does not apply to a constant pressure control used only for setup purposes.

R 408.12740. Double and tenoner drives.

Rule 2740. (1) Feed chains and sprockets of double end tenoning machines shall be completely enclosed, as prescribed in General Industry Safety Standard, Part 7 “Guards for Power Transmission,” as referenced in R 408.12702, except for that portion of chain used for conveying the stock.

(2) At the rear ends of frames over which feed conveyors run, sprockets and chains shall be guarded at the sides by plates projecting beyond the periphery of sprockets and the ends of lugs.

(3) The unloading end of the frame over which the feed conveyors run shall be extended so the material, as it leaves the machine, will be guided to a point where the operator cannot reach the point of operation.

R 408.12773. Veneer steaming and soaking vats.

Rule 2773. (1) The sides of veneer steam and soaking vats shall extend to a height of not less than 36 inches above the floor, working platform or ground or all sides shall be enclosed with a standard barrier as prescribed In General Industry Safety Standard Part 2 “Floor and Wall Openings, Stairways and Skylights,” as referenced in R 408.12702.

(2) Large veneer steam and soaking vats divided into sections shall have a walkway between sections. A walkway shall have a standard barrier as prescribed In General Industry Safety Standard, Part 2 “Floor and Wall Openings, Stairways and Skylights,” as referenced in R 408.12702, on each exposed side. The handrails may be removed, if necessary, but shall be immediately replaced. If the size of the stock handled permits, the size of the vat sections should be 9 feet or less.

R 408.12774. Vat loading and unloading.

Rule 2774. Either or both of the following means shall be used in loading and unloading veneer steam and soaking vats:

(a) Mechanical handling or conveying equipment shall be provided and designed so the logs are removed without the assistance of an employee at the edge of the veneer steam and soaking vat.

(b) The floor surface at the sides of the vats being used shall be antislip.

R 408.12779. Rescinded.

R 408.12781. Drag saws.

Rule 2781. A drag saw shall be located at allow at least a 4-foot clearance for passage where the saw is at the extreme end of the stroke. If such clearance is not obtainable, the saw and its driving mechanism shall be provided with a standard barrier as prescribed in General Industry Safety Standard Part 2 “Floor and Wall Openings, Stairways and Skylights,” as referenced in R 408.12702.

R 408.12791. Operating rules; inspection and maintenance.

Rule 2791. (1) A supervisor or employee shall not remove or make inoperable any safety device or guard specified in this standard.

(2) Dull, badly set, improperly filed, or improperly tensioned saws shall be immediately removed from service before they begin to cause the material to stick, jam, or kickback when it is fed to the saw at a normal speed. Saws to which gum has adhered on the sides shall be immediately cleaned.

(3) Knives and cutting heads of woodworking machines shall be kept sharp, properly adjusted, and firmly secured. If 2 or more knives are used in 1 head, they shall be properly balanced.

(4) Bearings shall be kept free of lost motion and shall be well lubricated.

(5) Arbors of circular saws shall be free from play.

(6) The sharpening or tensioning of saw blades or cutters shall be done only by persons of demonstrated skill.

(7) A saw blade, cutter head, or tool collar shall not be placed or mounted on a machine arbor unless the tool has been machined as to size and shape to fit the arbor.

R 408.12799. Rescinded.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY STANDARDS

Filed with the Secretary of State on April 5, 2013

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154 and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.12216, R 408.12217, R 408.12218, R 408.12220, and R 408.12242 of the Michigan Administrative Code are amended, R 408.12202 is added, and R 408.12231 is rescinded, as follows:

PART 22. TRACTORS

R 408.12202 Adoption of standards by reference.

Rule 2202. (1) The following standards are adopted by reference in these rules and are available from SAE World Headquarters, 400 Commonwealth Drive, Warrendale, Pennsylvania, 15096-001, USA, telephone number: 1-877.606.7323 or via the internet at website: www.sae.org; at a cost as of the time of adoption of these rules, as stated in this subrule.

(a) Society of Automobile Engineers (SAE) standard SAE J4C "Motor Vehicle Seat Belt Assemblies," 1965 edition. Cost \$66.00.,

(b) SAE J167A "Overhead Protection for Agricultural Tractors Standard." Cost: \$ 66.00.

(2) The National Fire Protection Association (NFPA) standard, NFPA 505 "Type Designations, Areas of Use, Maintenance, and Operation of Powered Industrial Trucks," 1975 edition, is adopted by reference in these rules and is available from NFPA, 1 Batterymarch Park, Quincy, Massachusetts, 02169-7471, USA, telephone number: 1-800-334-3555 or via the internet at website: www.nfpa.org; at a cost as of the time of adoption of these rules of \$27.00.

(3) The following Federal Occupational Safety and Health Administration (OSHA) regulations are adopted by reference in these rules. Copies of these regulations are available from the United States Department of Labor, Occupational Safety and Health Administration, via the internet at website www.osha.gov, at no charge as of the time of adoption of these rules.

(a) Occupational Safety and Health Standard for Agriculture: 1928.52 "Protective frames for wheel-type agricultural tractors -- test procedures and performance requirements."

(b) Occupational Safety and Health Standards for Agriculture: 1928.53 "Protective enclosures for wheel-type agricultural tractors -- test procedures and performance requirements."

(c) Safety and Health Regulations for Construction: 1926.1001 "Minimum performance criteria for rollover protective structures for designated scrapers, loaders, dozers, graders, and crawler tractors."

(4) The standards adopted in subrules (1), (2), and (3) of this rule are also available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(5) Copies of the standards adopted in subrules (1), (2), and (3) of this rule may be obtained from the publisher or may also be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(6) The following Michigan occupational safety and health standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of licensing and regulatory affairs, MIOSHA standards section, 7150 Harris Drive, P.O. Box 30643, Lansing, MI, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) General Industry Safety Standard Part 33 “Personal Protective Equipment,” R 408.13301 to R 408.13398.

(b) General Industry Safety Standard Part 37 “Accident Prevention Signs and Tags,” R 408.13701 to R 408.13736.

R 408.12216 Overhead guards.

Rule 2216. (1) When a load is lifted higher than the head of the operator, and the load creates a hazard to the operator, or when the operator is endangered by a hazard of falling objects other than the load, an overhead guard shall be provided. The overhead guard shall be as prescribed in SAE J167A, “Overhead Protection for Agricultural Tractors Standard,” as referenced in R 408.12202.

(2) The overhead guard shall be constructed in a manner that minimizes interference with the driver’s horizontal visibility. The overhead guard may be constructed of a solid material. If a grid or mesh is used, a 1.5-inch diameter circle shall be the maximum circle that can be inserted between the elements of the grid or mesh. The guard shall be large enough to extend over the operator under all normal circumstances of tractor operation, including forward and rearward tilt of the mast.

(3) On a tractor, a vertical clearance of not less than 39 inches should be maintained from the point of maximum depression of the operator’s seat to the underside of the section of the overhead guard under which the operator’s head moves during normal operation.

(4) Where head room conditions limit the overall lowered height of the tractor, the normal clearance height may be reduced if the operator wears safety head protection as prescribed in General Industry Safety Standard Part 33 “Personal Protective Equipment,” as referenced in R 408.12202.

R 408.12217 Operation of tractor on slope, ROPS requirements; remounting; labeling.

Rule 2217. (1) After January 1, 1980, an employer shall not permit a tractor to be operated on a slope that could cause the tractor to overturn, unless the tractor is equipped with a ROPS. A low-profile that is used where the vertical clearance is insufficient to allow a ROPS-equipped, low profile tractor to operate, and where it is used inside a building, is excepted from this requirement.

(2) A ROPS for a wheel-type tractor shall meet the test and performance requirements of the Federal Occupational Safety and Health Administration (OSHA) regulations 29 C.F.R. 1928.52 “Protective frames for wheel-type agricultural tractors -- test procedures and performance requirements,” and 1928.53 “Protective enclosures for wheel-type agricultural tractors -- test procedures and performance requirements,” that are adopted by reference in R 408.12202.

(3) If a ROPS is removed for any reason, it shall be remounted before the tractor is operated so as to meet the requirements of this rule.

(4) Each ROPS shall have permanently affixed to it a label that states all of the following:

- (a) Manufacturer's or fabricator's name and address.
- (b) ROPS model number, if any.
- (c) Tractor make, model, or series number that the ROPS is designed to fit.
- (d) That the ROPS model was tested in accordance with the requirements of OSHA regulations 29 C.F.R. 1928.52, "Protective frames for wheel-type agricultural tractors -- test procedures and performance requirements," 29 C.F.R. 1928.53 "Protective enclosures for wheel-type agricultural tractors -- test procedures and performance requirements," or 29 C.F.R. 1926.1001 "Minimum performance criteria for rollover protective structures for designated scrapers, loaders, dozers, graders, and crawler tractors," that are adopted by reference in R 408.42202.

R 408.12218 Construction of seat belts.

Rule 2218. An employer shall equip each tractor having a ROPS with a seat belt which meets the requirements of the standard, SAE J4C "Motor Vehicle Seat Belt Assemblies," 1965 edition, as adopted by reference in R 408.42202, except as noted in R 408.12252 (2) and (3).

R 408.12220 Restrictions of use.

Rule 2220. (1) Except as provided in subrule (2) of this rule, a tractor shall not be used in an environment that is likely to contain an ignitable mixture of gases, vapors, dusts, or fibers.

(2) A tractor used in a hazardous environment, as noted in subrule (1) of this rule, shall be equipped and labeled as prescribed in the National Fire Protection Association Standard NFPA 505, "Type Designations, Areas of Use, Maintenance, and Operation of Powered Industrial Trucks," 1975 edition, as adopted by reference in R 408.42202.

(3) A tractor with an internal combustion engine shall not be operated in a building or enclosed area unless ventilation is provided which reduces the concentration of toxic gases below the maximum allowable limits as set by the Michigan Occupational Safety and Health Administration (MIOSHA) Standards.

R 408.12231 Rescinded.

R 408.12242 Signs, lights, and warning devices.

Rule 2242. (1) A tractor that is operated on a public street or road shall display a slow moving vehicle sign, as prescribed in R 408.13721 of General Industry Safety Standard Part 37 "Accident Prevention Signs and Tags," as referenced in R 408.12202. The tractor shall be equipped with an amber flashing or rotating light visible from 360 degrees.

(2) A tractor that is operated between dawn and dusk on a public street or road or in an area where general lighting is less than 2 foot-candles shall be equipped with headlights and a taillight.

(3) Where an employee's safety may be affected, a tractor used in areas where general lighting is less than 2 foot-candles shall be equipped with auxiliary lights that illuminate the work in progress.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY STANDARDS

Filed with the Secretary of State on April 2, 2013

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154 and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.13811, R 408.13812, R 408.13822, R 408.13847, R 408.13865, R 408.13871, and R 408.13881, of the Michigan Administrative Code are amended, and R 408.13802 is added, as follows:

PART 38. HAND AND PORTABLE POWERED TOOLS

R 408.13802 Adoption of standards by reference.

Rule 3802. (1) The American National Standard Institute (ANSI) Standard, ANSI A10.3 "Powder-Actuated Fastening Systems," 1977 edition, is adopted by reference in these rules and is available from IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at website: <http://global.ihs.com>; at a cost as of the time of adoption of these rules of \$20.00.

(2) The standard adopted in subrule (1) of this rule is also available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(3) Copies of the standard adopted in subrule (1) of this rule may be obtained from the publisher or may also be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(4) The Michigan occupational safety and health standard General Industry Safety Standard Part 33 "Personal Protective Equipment," R 408.13301 to R 408.13398, is referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of licensing and regulatory affairs, MIOSHA standards section, 7150 Harris Drive, P.O. Box 30643, Lansing, MI, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

R 408.13811. Employer responsibility.

Rule 3811. An employer shall do both of the following:

(a) Ensure that an employee has been trained in the use of hand tools and portable powered tools before authorizing their use.

(b) Maintain, or require to be maintained, hand tools and portable powered tools free of defects that could cause injury to an employee.

R 408.13812. Employee responsibilities.

Rule 3812. An employee shall not use a tool for other than its designated or approved use.

R 408.13822. Inspection.

Rule 3822. (1) A portable pneumatic grinder not legibly marked with the manufacturer's rated speed shall not be used.

(2) A tool shall be inspected visually by the employee using the tool for safe operation before daily use, and, when found defective, it shall be removed from service.

R 408.13847. Hot sticks.

Rule 3847. (1) A hot stick and any tool attached to it shall be clean and inspected for damage before use.

(2) A hot stick which has been repaired by a knowledgeable employee or an outside service and tested to meet the requirements of subrule (3) of this rule.

(3) A new hot stick purchased after June 1, 1983, shall not be used unless it has been certified and labeled by the manufacturer to meet the following standards:

(a) Fiberglass, 100,000 volts per foot of length for 5 minutes, or any equivalent test.

(b) Wood, 75,000 volts per foot of length for 3 minutes, or any equivalent test.

(4) A hot stick shall be stored in a manner to protect it from damage. A hot stick made of wood shall be protected from moisture.

(5) A hot stick shall not be used in excess of the rated capacity certified by the manufacturer.

(6) The minimum working distance and minimum clear hot stick distances prescribed in table 1, when using live-line tools, shall not be violated.

(7) Table 1 reads as follows:

TABLE 1 ALTERNATING CURRENT — MINIMUM DISTANCES	
Voltage Range (Phase To Phase) Kilovolt	Minimum Working and Clear Hot Stick Distance
2.1 to 15	2 ft. 0 in.
15.1 to 35	2 ft. 4 in.
35.1 to 46	2 ft. 6 in.
46.1 to 72.5	3 ft. 0 in.
72.6 to 121	3 ft. 4 in.
138 to 145	3 ft. 6 in.

161 to 169	3 ft. 8 in.
230 to 242	5 ft. 0 in.
345 to 362	¹ 7 ft. 0 in.
500 to 552	¹ 11 ft. 0 in.
700 to 765	¹ 15 ft. 0 in.
¹ NOTE: For 345-362 kV, 500-552 kV, and 700-765 kV., the minimum working distance and the minimum clear hot stick distance may be reduced provided that such distances are not less than the shortest distance between the energized part and the grounded surface.	

R 408.13865. Powered stapler and nailers.

Rule 3865. (1) A portable powered stapler or nailer, capable of driving a fastener with a diameter more than .0475 inch — 18 gauge A.W.G., at more than 75 feet per second, shall be designed so that the operator is required to make not less than 2 separate operations to activate the tool with 1 operation being to place the tool against the work surface.

(2) The design shall prevent discharge of the stapler during loading or when dropped.

(3) A portable powered stapler or nailer shall not be pointed or discharged at other than the work piece.

(4) The operator of a portable powered stapler or nailer and those employees within the striking distance of its fastener shall be provided with and use eye protection as prescribed in General Industry Safety Standard Part 33 “Personal Protective Equipment,” as referenced in R 408.13802.

(5) A positive actuation of the operator control shall be required to propel each fastener from a powered stapler or nailer.

(6) When relieving a jam-up of a fastening device, the source of power shall be disconnected.

(7) At the beginning of each shift, a portable powered stapler and nailer shall be tested for safe operation.

(8) Safety devices and operating controls shall not be made inoperative.

R 408.13871. Powder actuated tools; design and construction.

Rule 3871. Powder-actuated tools shall be designed and constructed as prescribed in section 6 of ANSI A10.3 “Powder-Actuated Fastening Systems,” 1977 edition, as adopted in R 408.13802.

R 408.13881. Refueling; operation in enclosed area prohibited; exception.

Rule 3881. (1) A fuel-powered tool shall be stopped while being refueled, serviced, or maintained.

(2) A fuel-powered tool shall not be operated in an enclosed area, unless the toxic fumes are below the maximum allowable limits prescribed by Michigan occupational safety and health administration (MIOSHA) standards.

(3) Where refueling is done with a portable container, the container shall be an approved safety can with an automatic closing cap and flame arrestor.

**PROPOSED ADMINISTRATIVE RULES,
NOTICES OF PUBLIC HEARINGS**

MCL 24.242(3) states in part:

“... the agency shall submit a copy of the notice of public hearing to the Office of Regulatory Reform for publication in the Michigan register. An agency's notice shall be published in the Michigan register before the public hearing and the agency shall file a copy of the notice of public hearing with the Office of Regulatory Reform.”

MCL 24.208 states in part:

“Sec. 8. (1) The Office of Regulatory Reform shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(d) Proposed administrative rules.

(e) Notices of public hearings on proposed administrative rules.”

PROPOSED ADMINISTRATIVE RULES

DEPARTMENT OF ENVIRONMENTAL QUALITY

OFFICE OF WASTE MANAGEMENT AND RADIOLOGICAL PROTECTION

HAZARDOUS WASTE MANAGEMENT

Proposed Draft March 27, 2013

Filed with the Secretary of State on

These rules take effect 7 days after filing with the Secretary of State

(By authority conferred on the director and the department of environmental quality by sections 11115a, 11115b, 11118, 11123, 11127, 11128, 11130, 11132a, 11137, 11138, 11140, 11141, and 11153 of 1994 PA 451, and Executive Reorganization Order Nos. 1995-16, 2009-31, and 2011-1, MCL 324.11115a, 324.11115b, 324.11118, 324.11123, 324.11127, 324.11128, 324.11130, 324.11132a, 324.11137, 324.11138, 324.11140, 324.11141, 324.11153, 324.99903, 324.99919, and 324.99921)

R 299.9101, R 299.9102, R 299.9103, R 299.9104, R 299.9105, R 299.9106, R 299.9107, R 299.9108, R 299.9202, R 299.9203, R 299.9204, R 299.9205, R 299.9206, R 299.9207, R 299.9212, R 299.9216, R 299.9220, R 299.9224, R 299.9225, R 299.9226, R 299.9228, R 299.9230, R 299.9301, R 299.9304, R 299.9306, R 299.9307, R 299.9308, R 299.9309, R 299.9312, R 299.9405, R 299.9409, R 299.9501, R 299.9502, R 299.9503, R 299.9504, R 299.9505, R 299.9506, R 299.9507, R 299.9508, R 299.9509, R 299.9510, R 299.9511, R 299.9512, R 299.9513, R 299.9514, R 299.9515, R 299.9516, R 299.9517, R 299.9518, R 299.9519, R 299.9520, R 299.9521, R 299.9522, R 299.9523, R 299.9524, R 299.9603, R 299.9604, R 299.9605, R 299.9607, R 299.9608, R 299.9609, R 299.9610, R 299.9612, R 299.9615, R 299.9616, R 299.9620, R 299.9621, R 299.9623, R 299.9629, R 299.9640, R 299.9706, R 299.9708, R 299.9801, R 299.9804, R 299.9808, R 299.9821, R 299.9822, R 299.11001, R 299.11002, R 299.11003, R 299.11004, R 299.11005, and R 299.11009 of the Michigan Administrative Code are amended, R 299.9221, R 299.9223, R 299.9904, R 299.9905, R 299.9906, R 299.11101, R 299.11102, R 299.11103, R 299.11104, R 299.11105, R 299.11106, and R 299.11107 are rescinded, and R 299.9313 is added to read as follows:

PART 1. GENERAL PROVISIONS

R 299.9101 Definitions; A, B.

Rule 101. As used in these rules:

(a) "Aboveground tank" means a device which meets the definition of "tank" in this part and which is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface bottom and can be visually inspected.

(b) "Act" means 1994 PA 451, MCL 324.101 to **324.90106**, and known as the natural resources and environmental protection act.

(c) "Act 138" means 1998 PA 138, MCL 29.471 to 29.480, and known as the hazardous materials transportation act.

- (d) "Act 181" means 1963 PA 181, MCL 480.141 **to 480.25**, and known as the motor carrier safety act.
- (e) "Act 207" means 1941 PA 207, MCL 29.1 **to 29.34**, and known as the fire prevention code.
- (f) "Act 218" means sections 3101 and 3102 of 1956 PA 218, MCL 500.3101 and 500.3102, and known as the insurance code of 1956
- (g) "Act 236" means 1961 PA 236, MCL 600.101 **to 600.9948**, and known as the revised judicature act.
- (h) "Act 300" means 1949 PA 300, MCL 257.1 **to 257.923**, and known as the Michigan vehicle code.
- (i) "Act 306" means 1969 PA 306, MCL 24.201 **to 24.328**, and known as the administrative procedures act of 1969.
- (j) "Act 368" means 1978 PA 368, MCL 333.1101 **to 333.25211**, and known as the public health code.
- (k) "Act 399" means 1976 PA 399, MCL 325.1001 **to 325.1023**, and known as the safe drinking water act.
- (l) "Active life" means the period from the initial receipt of hazardous waste at a facility until the director receives certification of final closure.
- (m) "Active portion" means that portion of a facility where treatment, storage, or disposal operations are being, or have been, conducted after November 19, 1980, and which is not a closed portion. (See also "closed portion" and "inactive portion")
- (n) "Active range" means a military range that is currently in service and being regularly used for range activities.
- (o) "Administrator" means the administrator of the EPA or the administrator's designee.
- (p) "Agent," when used in conjunction with the term United States importer, means an employee of the United States importer or a legally recognized representative of the United States importer who has been authorized in a lawfully executed written document, such as a power of attorney, to act on the United States importer's behalf.
- (q) "Agreement state" means a state that has entered into an agreement with the NRC under subsection 274b of the atomic energy act of 1954, as amended, to assume responsibility for regulating within its borders byproduct, source, or special nuclear material in quantities not sufficient to form a critical mass.
- (r) "Ampule" means an airtight vial made of glass, plastic, metal, or any combination of these materials.
- (s) "Ancillary equipment" means any device, including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to storage or treatment tanks, between hazardous waste storage and treatment tanks to a point of disposal on site, or to a point of shipment for disposal off site.
- (t) "Antifreeze" means a mixture containing ethylene glycol or propylene glycol for use as a heat transfer or dehydration fluid for the purposes of regulation as a universal waste under R 299.9228.
- (u) "Aquifer" means a geologic formation, group of formations, or part of a formation that is capable of yielding a significant amount of groundwater to wells or springs.
- (v) "Associated organic chemical manufacturing facility" means a facility that meets all of the following requirements:
 - (i) The primary SIC code at the facility is 2869 but operations may also include SIC codes 2821, 2822, and 2865.
 - (ii) The facility is physically co-located with a petroleum refinery.
 - (iii) The petroleum refinery to which the oil that is being recycled is returned also provides hydrocarbon feedstocks to the facility.
- (w) "ASTM" means the ~~American society for testing and materials~~ **ASTM International**.

(x) "Authorized representative" means the person who is responsible for the overall operation of a facility or an operational unit, such as the plant manager, superintendent, or person who has equivalent responsibilities.

(y) "Battery" means a device which consists of 1 or more electrically connected electrochemical cells and which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system that consists of an anode, a cathode, an electrolyte, and any such connections that are needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

(z) "Boiler" means an enclosed device which uses controlled flame combustion and which is either determined by the director to be a boiler based on the standards and procedures ~~set forth~~ in 40 C.F.R. §§260.32 and 260.33, which are adopted by reference in R 299.11003, or which is in compliance with all of the following characteristics:

(i) The unit shall have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases.

(ii) The unit's combustion chamber and primary energy recovery section or sections shall be of an integral design. To be of an integral design, the combustion chamber and the primary energy recovery section or sections, such as waterwalls and superheaters, shall be physically formed into 1 manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section or sections are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment, such as economizers or air preheaters, need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of an integral design:

(A) Process heaters or units that transfer energy directly to a process stream.

(B) Fluidized bed combustion units.

(iii) While in operation, the unit shall maintain a thermal energy recovery efficiency of not less than 60% calculated in terms of the recovered energy compared with the thermal value of the fuel.

(iv) The unit shall export and utilize not less than 75% of the recovered energy calculated on an annual basis. In this calculation, credit shall not be given for recovered heat that is used internally in the same unit, such as for the preheating of fuel or combustion air and for the driving of induced or forced draft fans or feedwater pumps.

(aa) "Burner" means an owner or operator of a facility that burns either used oil fuel or hazardous waste fuel.

(bb) "By-product" means a material which is not one of the primary products of a production process and which is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a coproduct which is produced for the general public's use and which is ordinarily used in the form in which it is produced by the process.

R 299.9102 Definitions; C, D.

Rule 102. As used in these rules:

(a) "Carbon regeneration unit" means an enclosed thermal treatment device used to regenerate spent activated carbon.

(b) "Cathode ray tube" or "CRT" means a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device. A used, intact CRT is a CRT whose vacuum has not been released. A used, broken CRT means glass removed from its housing or casing whose vacuum has been released.

(c) "CERCLA" means the comprehensive environmental response compensation and liability act of 1980, as amended, 42 U.S.C. §9601 et seq.

(d) "Certification" means a statement of professional opinion based upon knowledge or belief.

(e) "Certified delivery" means certified mail with return receipt requested, or equivalent courier service or other means, that provides the sender with a receipt confirming delivery.

(f) "C.F.R." means the Code of Federal Regulations.

(g) "Chemical agents and munitions" means chemical agents and munitions as defined in 50 U.S.C. section 1521(j)(1).

(h) "Closed portion" means the portion of a facility that an owner or operator has closed pursuant to the approved facility closure plan and all applicable closure requirements. (See also "active portion" and "inactive portion.")

(i) "Combustion zone" means the portion of the internal capacity of an incinerator where the gas temperatures of the materials being burned are within 100 degrees Celsius of the specified operating temperature.

(j) "Commingling" means the transfer of hazardous wastes between containers or vehicles by a transporter during the course of transportation that results in the waste being mixed or repackaged.

(k) "Component" means either the tank or the ancillary equipment of a tank system.

(l) "Confined aquifer" means an aquifer that is bounded above and below by impermeable beds or by beds that have a distinctly lower permeability than that of the aquifer itself. It is an aquifer that contains confined groundwater.

(m) "Consignee" means the ultimate treatment, storage, or disposal facility in a receiving country to which the hazardous waste will be sent.

(n) "Consolidation" means the transfer of containers of hazardous wastes between transport vehicles by a transporter during the course of transportation without the containers holding the wastes being opened and without the wastes being repackaged.

(o) "Constituent" or "hazardous waste constituent" means a constituent that caused the administrator to list the hazardous waste in 40 C.F.R. part 261, subpart D, a constituent that is listed in table I of 40 C.F.R. §261.24, or a constituent that is listed in table 201, 202, or 205 of these rules.

~~(p) "Construction permit" means a permit which is issued pursuant to part 111 of the act and which is for the construction of a treatment, storage, or disposal facility.~~

~~(q)~~ "Consumer electronics" means devices containing an electronic circuit board, liquid crystal display, or plasma display such as those commonly found in homes and offices and these devices when used in other settings.

~~(q)~~ "Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

~~(r)~~ "Contingency plan" means a document that sets out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

~~(s)~~ "Corrective action management unit" or "CAMU" means an area within a facility that is used only for managing remediation waste, in the case of grandfathered corrective action management units, or corrective action management unit-eligible waste, as further explained in R 299.9635(2) and (3), in implementing corrective action or cleanup at the facility.

~~(t)~~ "Corrective action management unit-eligible waste" or "CAMU-eligible waste" means all wastes and hazardous wastes and all media, including groundwater, surface water, soils, sediments, and debris, that are managed for implementing cleanup. As-generated wastes from ongoing industrial operations at a site are not CAMU-eligible. Notwithstanding this subrule and where appropriate, as-generated non-hazardous waste may be placed in a corrective action management unit if the waste is being used to

facilitate treatment or the performance of the corrective action management unit. Wastes that would otherwise meet the definition of a camu-eligible waste are not CAMU-eligible wastes if either of the following apply:

(i) If the wastes are hazardous wastes found during a cleanup in intact or substantially intact containers, tanks, or other non-land-based units found above ground, unless the wastes are first placed in the tanks, containers or non-land-based units as part of the cleanup, or the containers or tanks are excavated during the course of the cleanup.

(ii) If the director, or the director's designee, uses the authority in R 299.9635 to prohibit the wastes from management in a corrective action management unit.

~~(uv)~~ "Corrosion expert" means a person who, by reason of his or her knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. The person shall be certified as being qualified by the national association of corrosion engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

~~(vw)~~ "CRT collector" means a person who receives used, intact CRTs for recycling, repair, resale, or donation.

~~(wx)~~ "CRT glass manufacturer" means an operation or part of an operation that uses a furnace to manufacture CRT glass.

~~(xy)~~ "CRT processing" means conducting all of the following activities:

(i) Receiving broken or intact CRTs.

(ii) Intentionally breaking intact CRTs or further breaking or separating broken CRTs.

(iii) Sorting or otherwise managing glass removed from CRT monitors.

~~(yz)~~ "Designated facility" means a hazardous waste treatment, storage, or disposal facility which has received a permit or has interim status pursuant to 40 C.F.R. parts 124 and 270; which has a license, permit, or interim status from a state that is authorized pursuant to section 3006 of title II of the solid waste disposal act, which, if located in ~~this state-Michigan~~, has an operating license that is issued pursuant to part 111 of the act, has a legally binding agreement with the director that authorizes operation, or is subject to the requirements of section 23~~(74)~~ and ~~(85)~~ of part 111 of the act; or which is regulated pursuant to R 299.9206(1)(c) or R 299.9803; and which has been designated on the manifest by the generator pursuant to R 299.9304. If the waste is destined for a facility in an authorized state that has not yet obtained authorization to regulate the particular waste as hazardous, then the designated facility shall be a facility that is allowed by the receiving state to accept the waste. A designated facility may also mean a generator site designated on the manifest to receive its waste as a return shipment from a facility that has rejected the waste in accordance with R 299.9608.

~~(zaa)~~ "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except for the management activities described in 40 C.F.R. §§273.13(a) and (c) and 273.33(a) and (c). A facility at which a particular category of universal waste is only accumulated is not a destination facility for purposes of managing that category of universal waste.

~~(aab)~~ "Dike" means an embankment or ridge which consists of either natural or man-made materials and which is used to prevent the movement of liquids, sludges, solids, or other materials.

~~(bbe)~~ "Dioxins and furans (D/F)" means tetra, penta, hexa, hepta, and octa-chlorinated dibenzo dioxins and furans.

~~(ccd)~~ "Director" means the director of the department of environmental quality.

(ddee) "Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

(eeff) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste into or on land or water in such manner that the hazardous waste or a constituent of the hazardous waste might enter the environment, be emitted into the air, or discharged into water, including groundwater.

(ffgg) "Disposal facility" means a facility or a part of a facility at which hazardous waste, as defined by these rules, is intentionally placed into or on any land or water and at which hazardous waste will remain after closure. The term "disposal facility" does not include a corrective action management unit into which remediation wastes are placed.

(gghh) "Displacement" means the relative movement of any two sides of a fault measured in any direction.

(hhii) "DOD" means the United States department of defense.

(iiij) "DOT" means the United States department of transportation.

(jjkk) "Do-it-yourselfer used oil collection center" means any site or facility that accepts or aggregates and stores used oil collected only from household do-it-yourselfers.

(kkH) "Drip pad" means an engineered structure which consists of a curbed, free-draining base, which is constructed of nonearthen materials, and which is designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

R 299.9103 Definitions; E, F.

Rule 103. As used in these rules:

~~(a) "Electric lamp" means the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Examples of common electric lamps include incandescent, fluorescent, high intensity discharge, sodium vapor, mercury vapor, and neon lamps.~~

~~(b)~~ **(b)** "Element" means any part of a unit or any group of parts of a unit that are assembled to perform a specific function, for example, a pump seal, pump, kiln liner, or kiln thermocouple.

(eb) "Elementary neutralization unit" means a device that is in compliance with both of the following requirements:

(i) Is used for neutralizing wastes that are hazardous wastes only because they exhibit the corrosivity characteristic defined in R 299.9212 or are listed in R 299.9213 or R 299.9214 only because they exhibit the corrosivity characteristic.

(ii) Is in compliance with the definition of "tank," "tank system," "container," "transport vehicle," or "vessel" as specified in this part.

(dc) "Eligible NARM waste" means NARM waste that is eligible for the transportation and disposal conditional exemption outlined in R 299.9823 of the rules. It is a NARM waste that contains hazardous waste, meets the waste acceptance criteria of, and is allowed by state NARM regulations to be disposed of at a low-level radioactive waste disposal facility licensed pursuant to 10 C.F.R. part 61 or NRC agreement state equivalent regulations.

(ed) "Enforceable document" means an order, a plan, or other document issued by the department either in place of an operating license for the postclosure period, or as a source of alternative requirements for hazardous waste management units, as provided under these rules. An enforceable document may include, but is not limited to, a corrective action order under part 111 of the act, a

CERCLA remedy, or a closure or postclosure plan. An enforceable document shall be issued under an authority that has available all of the following remedies:

(i) The authority to sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of the requirements of these documents.

(ii) The authority to compel compliance with the requirements for corrective action or other emergency response measures deemed necessary to protect human health and the environment.

(iii) The authority to assess or sue to recover in court civil penalties, including fines, for violations of the requirements of these documents.

(fe) "EPA" means the United States environmental protection agency.

(gf) "EPA acknowledgment of consent" means the cable that is sent to EPA from the United States embassy in a receiving country which acknowledges the written consent of the receiving country to accept the hazardous waste and which describes the terms and conditions of the receiving country's consent to the shipment.

(hg) "EPA region" means the states and territories found in any of the 10 EPA regions identified in 40 C.F.R. §260.10.

(ih) "Equivalent method" means any testing or analytical method that is approved by the director pursuant to R 299.9215.

(ji) "Excluded scrap metal" means processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

(kj) "Exempted radioactive waste" means a waste that meets the eligibility criteria and all of the conditions in R 299.9822, or meets the eligibility criteria and complies with all of the conditions in R 299.9823. Such waste is conditionally exempted from the regulatory definition of hazardous waste in R 299.9203.

(lk) "Existing facility" means a treatment, storage, or disposal facility that either received all necessary state-issued environmental ~~construction or operating~~ permits or licenses before January 1, 1980, or for which approval of construction has been received from the air pollution control commission before November 19, 1980. Existing facilities also include those treatment, storage, or disposal facilities which were operating before January 1, 1980, under existing authority and which did not require state-issued environmental ~~construction or operating~~ permits or licenses.

(ml) "Existing portion" means the land surface area of an existing waste management unit previously authorized and included in the original part A permit application to the EPA on which wastes have been placed before the issuance of a permit pursuant to RCRA or an operating license pursuant to these rules, whichever is sooner.

(nm) "Existing tank system" or "existing component" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced, on or before July 14, 1986. Installation shall be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either of the following provisions applies:

(i) A continuous on-site physical construction or installation program has begun.

(ii) The owner or operator has entered into contractual obligations, which cannot be cancelled or modified without substantial loss, for physical construction of the site of installation of the tank system to be completed within a reasonable time.

(on) "Explosives or munitions emergency" means a situation involving the suspected or detected presence of unexploded ordnance, damaged or deteriorated explosives or munitions, an improvised explosive device, other potentially explosive material or device, or other potentially harmful military chemical munitions or device, that creates an actual or potential imminent threat

to human health, including safety, or the environment, including property, as determined by an explosives or munitions emergency response specialist. Such situations may require immediate and expeditious action by an explosives or munitions emergency specialist to control, mitigate, or eliminate the threat.

(~~p~~o) "Explosives or munitions emergency response" means all immediate response activities by an explosives or munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures, treatment or destruction of the explosives or munitions or transporting those items to another location to be rendered safe, treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance shall not terminate the explosives or munitions emergency. Explosives and munitions emergency responses may occur on either public or private lands and are not limited to responses at RCRA facilities.

(~~e~~p) "Explosives or munitions emergency response specialist" means an individual trained in chemical or conventional munitions or explosives handling, transportation, render-safe procedures, or destruction techniques. Explosives or munitions emergency response specialists include DOD emergency explosive ordnance disposal, technical escort unit, and DOD-certified civilian or contractor personnel; and other federal, state, or local government or civilian personnel similarly trained in explosives or munitions emergency responses.

(~~f~~q) "Facility" means all contiguous land and structures, other appurtenances, and improvements on the land used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units, such as 1 or more landfills or surface impoundments, or combinations of operational units. For the purpose of implementing corrective action under part 111 of the act, "facility" shall include all contiguous property under the control of the owner or operator. Notwithstanding the definition of the term "facility" as it relates to corrective action, a remediation waste management site is not a facility that is subject to corrective action under R 299.9629, but is subject to the corrective action requirements of part 111 of the act and these rules if the site is located within such a facility.

(~~s~~r) "Facility mailing list" means the mailing list for a facility that is maintained by the department pursuant to 40 C.F.R. §124.10I(1)(ix).

(~~t~~s) "Fault" means a fracture along which rocks on 1 side have been displaced with respect to rocks on the other side.

(~~u~~t) "Federal agency" means any department, agency, or other instrumentality of the federal government; any independent agency or establishment of the federal government, including any government corporation; and the United States government printing office.

(~~v~~u) "Federal clean air act" means Public Law 95-95, 42 U.S.C. §1857 et seq.

(~~w~~v) "Federal clean water act" means Public Law 92-500, 33 U.S.C. §1251 et seq.

(~~x~~w) "Federal hazardous materials transportation act" means Public Law 93-633, 49 U.S.C. §1801 et seq.

(~~y~~x) "Federal insecticide, fungicide, and rodenticide act" means 7 U.S.C. §§136 to 136y.

(~~z~~y) "Federal resource conservation and recovery act" means Public Law 94-580, 42 U.S.C. §6901 et seq.

(~~a~~az) "Federal safe drinking water act" means Public Law 95-190, 42 U.S.C. §300f et seq.

(~~b~~aa) "Final closure" means the closure of all hazardous waste management units at the facility pursuant to all applicable closure requirements so that hazardous waste management activities pursuant

to parts 5 and 6 of these rules are no longer conducted at the facility, unless the activities are subject to R 299.9306.

(~~ee~~**bb**) "Flood" means a flood that has a 1% chance of being equalled or exceeded in any given year.

(~~de~~**cc**) "Floodplain" means any land area that is subject to a 1% or greater chance of flooding in any given year from any source.

(~~ed~~**dd**) "Food chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

(~~fe~~**ee**) "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike and the surface of the waste contained in the tank or surface impoundment dike.

(~~gf~~**ff**) "Free liquids" means liquids that readily separate from the solid portion of a waste at ambient temperature and pressure.

(~~hg~~**gg**) "Fugitive emissions" means air contaminant emissions that emanate from non-point emission sources or sources other than stacks, ducts, or vents.

(~~hh~~**hh**) "Functionally equivalent element" means an element which performs the same function or measurement and which meets or exceeds the performance specifications of another element.

R 299.9104 Definitions; G to I.

Rule 104. As used in these rules:

(a) **"Gasification" means a process, conducted in an enclosed device or system, designed and operated to process petroleum feedstock, including oil-bearing hazardous secondary materials through a series of highly controlled steps utilizing thermal decomposition, limited oxidation, and gas cleaning to yield a synthesis gas composed primarily of hydrogen and carbon monoxide gas.**

(~~ba~~) "Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in part 2 of these rules or whose act first causes a hazardous waste to become subject to regulation.

(~~cb~~) "Geologist" means a person who, by reason of his or her knowledge of geology, mathematics, and the physical and life sciences, acquired by education and experience, is equipped to practice geology.

(~~de~~) "Groundwater" means water below the land surface in a zone of saturation.

(~~ed~~) "Hazardous waste" means a hazardous waste as defined in R 299.9203.

(~~fe~~) "Hazardous waste fuel" means hazardous waste burned for energy recovery in any boiler or industrial furnace that is not regulated as an incinerator or fuel produced from hazardous waste for this purpose by processing, blending, or other treatment.

(~~gf~~) "Hazardous waste management unit" means a contiguous area of land on or in which hazardous waste is placed or is the largest area in which there is a significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include all of the following:

(i) A surface impoundment.

(ii) A waste pile.

(iii) A land treatment area.

(iv) A landfill cell.

(v) An incinerator.

(vi) A tank and its associated piping and underlying containment system.

(vii) A container storage area. A container alone does not constitute a unit. The unit includes containers and the land or pad upon which they are placed.

(viii) A miscellaneous unit.

(~~hg~~) "Hazardous waste number" means the code number that is used to identify a particular type of hazardous waste.

(ih) "Holocene" means the most recent epoch of the quaternary period extending from the end of the Pleistocene to the present.

(ji) "Home scrap metal" means scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

(kj) "Household do-it-yourselfer used oil" means oil that is derived from households, such as used oil generated by individuals through the maintenance of their personal vehicles.

(lk) "Household do-it-yourselfer used oil generator" means an individual who generates household do-it-yourselfer used oil.

(ml) "Import" means the act of bringing hazardous waste into the United States from a foreign country.

(nm) "Inactive portion" means that portion of a facility that is not operated after November 19, 1980. (See also "active portion" and "closed portion.")

(on) "Inactive range" means a military range that is not currently being used, but that is still under military control and considered by the military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.

(pe) "Incinerator" means an enclosed device that satisfies either of the following criteria:

(i) Uses controlled flame combustion, does not meet the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, and is not listed as an industrial furnace.

(ii) Meets the definition of an infrared incinerator or plasma arc incinerator.

(qp) "Incompatible waste" means a hazardous waste that is unsuitable for either of the following:

(i) Placement in a particular device or facility because it may cause the corrosion or decay of containment materials, for example, container inner liners or tank walls.

(ii) Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure; fire or explosion; a violent reaction; toxic dusts, mists, fumes, or gases; or flammable fumes or gases. Examples of incompatible wastes are described in the provisions of 40 C.F.R. part 264, appendix V, and part 265, appendix V.

(rq) "Individual generation site" means the contiguous site at or on which 1 or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have 1 or more sources of hazardous waste, but is considered a single or individual generation site if the site or property is contiguous.

(sf) "Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish the recovery of materials or energy:

(i) Cement kilns.

(ii) Lime kilns.

(iii) Aggregate kilns.

(iv) Phosphate kilns.

(v) Coke ovens.

(vi) Blast furnaces.

(vii) Smelting, melting, and refining furnaces, including pyrometallurgical devices, such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces.

(viii) Titanium dioxide chloride process oxidation reactors.

(ix) Methane reforming furnaces.

(x) Pulp and liquor recovery furnaces.

(xi) Combustion devices that are used in the recovery of sulfur values from spent sulfuric acid.

(xii) Halogen acid furnaces for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility,

the acid product has a halogen acid content of at least 3%, the acid product is used in a manufacturing process, and, except for hazardous waste burned as a fuel, hazardous waste fed to the furnace has a minimum halogen content of 20% as-generated.

(xiii) Other devices that the administrator may, after notice and comment, add to this subdivision on the basis of 1 or more of the following factors:

(A) The design and use of the device primarily to accomplish the recovery of material products.

(B) The use of the device to burn or reduce raw materials to make a material product.

(C) The use of the device to burn or reduce secondary materials as effective substitutes for raw materials in processes using raw materials as principal feedstocks.

(D) The use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product.

(E) The use of the device in common industrial practice to produce a material product.

(F) Other factors, as appropriate.

(ts) "Infrared incinerator" means any enclosed device which uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(ut) "In-ground tank" means a device which satisfies the definition of "tank" specified in R 299.9108(a) and which has a portion of its wall situated, to any degree, within the ground, thereby preventing visual inspection of the external surface area of the device that is in the ground.

(v#) "Injection well" means a well into which fluids are injected. (See also "underground injection.")

(wv) "Inner liner" means a continuous layer of material which is placed inside a tank or container and which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

(xw) "In operation" means that a facility is treating, storing, or disposing of hazardous waste.

(y*) "Installation inspector" means a person who, by reason of his or her knowledge of the physical sciences and the principles of engineering acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.

(zy) "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

R 299.9105 Definitions; L to N.

Rule 105. As used in these rules:

(a) **"Lamp" means the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Examples of common lamps include incandescent, fluorescent, high intensity discharge, sodium vapor, mercury vapor, and neon lamps.**

(b) "Land disposal" means placement in or on the land and includes, but is not limited to, placement in any of the following:

(i) A landfill.

(ii) A surface impoundment.

(iii) A waste pile.

(iv) An injection well.

(v) A land treatment facility.

(vi) A salt dome formation.

(vii) A salt bed formation.

(viii) An underground mine or cave.

(ix) A concrete vault or bunker intended for disposal purposes.

~~The term~~ **"Land disposal"** also means placement in or on the land by means of open detonation and open burning where the residues continue to exhibit 1 or more of the characteristics of hazardous waste. ~~The term~~ **"Land disposal"** does not include ocean disposal.

~~(bc)~~ **"Land disposal restriction treatment standards"** means the treatment standards under 40 C.F.R. part 268 that a hazardous waste shall meet.

~~(ed)~~ **"Landfill"** means a disposal facility or part of a facility where hazardous waste is placed in or on land. ~~The term~~ **"Landfill"** does not include any of the following:

- (i) A pile.
- (ii) A land treatment facility.
- (iii) A surface impoundment.
- (iv) An underground injection well.
- (v) A salt dome formation.
- (vi) A salt bed formation.
- (vii) An underground mine or cave.
- (viii) A corrective action management unit.

~~(de)~~ **"Landfill cell"** means a discrete volume of a hazardous waste landfill that uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

~~(ef)~~ **"Land treatment facility"** means a treatment facility or part of a treatment facility at which hazardous waste is applied onto or incorporated into the soil surface. Such facilities are disposal facilities if the waste will remain after closure.

~~(fg)~~ **"Leachate"** means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

~~(gh)~~ **"Leak detection system"** means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. Such a system shall employ operational controls, such as daily visual inspections for releases into the secondary containment system or aboveground tanks, or consist of an interstitial monitoring device designed to continuously and automatically detect the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.

~~(hi)~~ **"Lift"** means a layer of placed materials, including a layer of compacted clay in a landfill liner or cap, or a layer of waste in a landfill.

~~(ij)~~ **"Liner"** means a continuous layer of natural or man-made materials beneath or on the sides of a surface impoundment, landfill, or landfill cell that restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

~~(jk)~~ **"Low-level mixed waste" or "LLMW"** means a waste that contains both LLRW and hazardous waste.

~~(kl)~~ **"Low-level radioactive waste" or "LLRW"** means a radioactive waste which contains source, special nuclear, or byproduct materials, and which is not classified high-level radioactive waste, transuranic waste, spent nuclear fuel, or byproduct materials as defined in section 11.e(2) of the atomic energy act of 1954, as amended.

~~(lm)~~ **"Management" or "hazardous waste management"** means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

~~(mn)~~ **"Manifest"** means the shipping document EPA Form 8700-22, including, if necessary, EPA Form 8700-22A, which is originated and signed by the generator or offeror in accordance with the instructions in the appendix to 40 C.F.R. part 262 and the applicable requirements of parts 3, 4, and 6 of these rules.

(~~no~~) "Manifest tracking number" means the alphanumeric identification number which is preprinted in item 4 of the manifest by a registered source.

(~~op~~) "Method of treatment or disposal" means 1 of the major categories of treatment or disposal used for hazardous waste, including any of the following:

- (i) Landfill.
- (ii) Land treatment.
- (iii) Thermal treatment.
- (iv) Chemical treatment.
- (v) Physical treatment.
- (vi) Biological treatment.

(~~pq~~) "Military" means the DOD, the armed services, coast guard, national guard, department of energy or other parties under contract or acting as agent for any of the parties, who handle military munitions.

(~~qr~~) "Military munitions" means all ammunition products and components produced or used by or for the DOD or the United States armed services for national defense and security, including military munitions under the control of the DOD, the United States coast guard, the United States department of energy, and national guard personnel. The term military munitions includes any of the following: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DOD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunitions, small arms ammunitions, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolitions charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components thereof. However, the term military munitions does include nonnuclear components of nuclear devices, managed under the department of energy's nuclear weapons program after all required sanitization operations under the atomic energy act of 1954, as amended, have been compiled.

(~~rs~~) "Military range" means designated land and water areas set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas.

(~~st~~) "Mining overburden returned to the mine site" means any material overlying an economic mineral deposit that is removed to gain access to the deposit and is then used for reclamation of a surface mine.

(~~tu~~) "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of. ~~The term~~ "**Miscellaneous unit**" does not include any of the following:

- (i) A container.
- (ii) A tank.
- (iii) A surface impoundment.
- (iv) A pile.
- (v) A land treatment unit.
- (vi) A landfill.
- (vii) An incinerator.
- (viii) A boiler.
- (ix) An industrial furnace.
- (x) An underground injection well with appropriate technical standards pursuant to 40 C.F.R. part 146.
- (xi) A unit that is eligible for a temporary operating license for research pursuant to R 299.9501.
- (xii) A corrective action management unit.

- (xiii) A staging pile.
- (uv) "Movement" means that hazardous waste transported to a facility in an individual vehicle.
- (vw) "Mixed waste" means a waste that contains both hazardous waste and source, special nuclear, or byproduct material subject to the atomic energy act of 1954, as amended.
- (wx) "Naturally occurring and/or accelerator-produced radioactive material" or "NARM" means radioactive material that is regulated by a state under state law, or by the United States department of energy, as authorized by the atomic energy act of 1954, as amended, under department of energy orders, and meets either of the following requirements:
 - (i) ~~is~~ radioactive material that is naturally occurring and is not source, special nuclear, or byproduct material as defined by the atomic energy act of 1954, as amended.
 - (ii) Is radioactive material that is produced by an accelerator.
- (xy) "New tank system" or "new tank component" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation has commenced after July 14, 1986. For purposes of 40 C.F.R. §§264.193(g)(2) and 265.193(g)(2), a new tank system is one for which construction commences after July 14, 1986.
- (yz) "NFPA" means the national fire protection association.
- (zaa) "NRC" means the United States nuclear regulatory commission.
- (aabb) "NRC license" or "NRC agreement state license" means a license issued by the NRC, or NRC agreement state, to users that manage radionuclides regulated by the NRC, or NRC agreement states, under the authority of the atomic energy act of 1954, as amended.

R 299.9106 Definitions; O to Q.

Rule 106. As used in these rules:

- (a) "On-ground tank" means a device which satisfies the definition of "tank" in R 299.9108(a) and which is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.
- (b) "On-site" means on the same or geographically contiguous property which may be divided by a public or private right-of-way if the entrance and exit between the pieces of property are at a crossroads intersection and access is by crossing, rather than going along, the right-of-way. Noncontiguous pieces of property owned by the same person but connected by a right of way which the owner controls and to which the public does not have access is also considered on-site property.
- (c) "On-site treatment facility" means a facility which is for the treatment of hazardous waste in tanks or containers, which is located on the site of generation of the wastes, and which does not do either of the following:
 - (i) Include equipment for incineration.
 - (ii) Accept hazardous wastes from other generators.
- (d) "Open burning" means the combustion of any material without any of the following characteristics:
 - (i) Control of combustion air to maintain adequate temperature for efficient combustion.
 - (ii) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion.
 - (iii) Control of the emission of the gaseous combustion products. (See also "incineration" and "thermal treatment.")
- (e) "Operating license" means a license **to construct a new facility or expand, enlarge, or alter an existing facility, or** to operate a ~~treatment, storage, or disposal~~ facility pursuant to the authority of part 111 of the act.
- (f) "Operator" means the person responsible for the overall operation of a facility.

(g) "Owner" means the person who owns a treatment, storage, or disposal facility, or part of such a facility, including the titleholder of the land on which the facility is located.

(h) "Partial closure" means the closure of a hazardous waste management unit pursuant to the applicable closure requirements of 40 C.F.R. part 265 and part 6 of these rules at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank, including its associated piping and underlying containment systems, a landfill cell, surface impoundment, waste pile, or other hazardous waste management units while other units of the same facility continue to operate.

(i) "Person" means any of the following entities:

(i) An individual.

(ii) A partnership.

(iii) The state.

(iv) A trust.

(v) A firm.

(vi) A joint stock company.

(vii) A federal agency.

(viii) A corporation, including a government corporation.

(ix) An association.

(x) A municipality.

(xi) A commission.

(xii) A political subdivision of a state.

(xiii) Any interstate body.

(xiv) Any other public body created by or pursuant to state law.

(j) "Personnel" or "facility personnel" means all persons who work at, or oversee the operations of, a hazardous waste facility and whose actions or failure to act might result in noncompliance with part 111 of the act or these rules.

(k) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that meets any of the following criteria:

(i) Is a new animal drug under section 201(w) of the federal food, drug, and cosmetic act of 1938, as amended, 21 U.S.C. §301 et seq.

(ii) Is an animal drug that has been determined by regulation of the secretary of health and human services not to be a new animal drug.

(iii) Is an animal feed under section 201(x) of the federal food, drug, and cosmetic act of 1938, as amended, 21 U.S.C. §301 et seq. that bears or contains any substances identified in paragraph (i) or (ii) of this subdivision.

(l) "Petrochemical recovered oil" means oil that has been reclaimed from secondary materials from normal organic chemical manufacturing processes and oil recovered from organic chemical manufacturing processes.

(m) "Petroleum refining facility" means an establishment that is primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking, or other processes.

(n) "Pharmaceutical" means a drug intended for use in the diagnosis, cure, mitigation, treatment, therapy, or prevention of disease in humans or animals.

(o) "Pile" means any noncontainerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage.

(p) "Plasma arc incinerator" means any enclosed device which uses a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(q) "Point source" means any discernible, confined, and discrete conveyance, including any of the following from which pollutants are or might be discharged:

- (i) A pipe.
- (ii) A ditch.
- (iii) A channel.
- (iv) A tunnel.
- (v) A conduit.
- (vi) A well.
- (vii) A discrete fissure.
- (viii) A container.
- (ix) Rolling stock.
- (x) A concentrated animal feeding operation.
- (xi) A vessel or other floating craft.

~~This term~~ **"Point source"** does not include return flows from irrigated agriculture.

(r) "Primary exporter" means any person who is required to originate the manifest for a shipment of hazardous waste pursuant to R 299.9304, which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export.

(s) "Primary monitoring parameter" means indicator parameters, for example, specific conductance, total organic carbon, or total organic halogen; hazardous waste constituents; or reaction products which provide a reliable indication of the presence of hazardous constituents in groundwater and which, when specified in a facility operating license, are subject to all of the requirements of 40 C.F.R. part 264, subpart F.

(t) "Processed scrap metal" means scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to, scrap metal which has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type and fines, drosses, and related materials which have been agglomerated. Shredded circuit boards being sent for recycling are not considered processed scrap and are covered under the exclusion from the definition of waste for shredded circuit boards that are being recycled in R 299.9204.

(u) "Processing" means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived products.

Processing includes all of the following:

- (i) Blending used oil with virgin petroleum products.
- (ii) Blending used oils to meet fuel specifications.
- (iii) Filtration.
- (iv) Simple distillation.
- (v) Chemical or physical separation.
- (vi) Re-refining.

(v) "Prompt scrap metal" means scrap metal as generated by the metal working and fabrication industries. Prompt scrap metal, which is also known as "industrial" or "new" scrap metal, includes all of the following:

- (i) Turnings.
- (ii) Cuttings.

- (iii) Punchings.
- (iv) Borings.
- (w) "Publicly owned treatment works", known as "POTW," means any device or system which is used in the treatment, including recycling and reclamation, of municipal sewage or industrial wastes of a liquid nature and which is owned by a "state" or "municipality," as defined by section 502(4) of the federal clean water act. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.
- (x) "Qualified groundwater scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certifications, or completions of accredited university courses that enable that individual to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.

R 299.9107 Definitions; R, S.

Rule 107. As used in these rules:

- (a) "RCRA" means the solid waste disposal act, as amended by the resource conservation and recovery act of 1976, as amended, 42 U.S.C. §6901 et seq.
- (b) "Reclamation" means either processing to recover a usable product or regeneration, such as in the recovery of lead values from spent batteries and the regeneration of spent solvents.
- (c) "Recreational property" means all lands that are predominately intended to provide outdoor recreational activities under the control and operation of a governmental agency, such as outdoor parks, preserves, campgrounds, and wildlife refuges.
- (d) "Recycle" means use, reuse, or reclamation. Material is "used" or "reused" if it is either of the following:
 - (i) Employed as an ingredient in an industrial process to make a product, unless distinct components of the material are recovered as separate end products, such as when metals are recovered from metal-containing secondary materials.
 - (ii) Employed in a particular function or application as an effective substitute for a commercial product, such as spent pickle liquor used as phosphorus precipitant and sludge conditioner in wastewater treatment.
- (e) "Recyclable material" means hazardous waste that is recycled.
- (f) "Re-refining distillation bottoms" means the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.
- (g) "Regional administrator" means the regional administrator or his or her designee for the EPA region in which the facility is located.
- (h) "Regulated unit" means a surface impoundment, waste pile, land treatment unit, or landfill that received hazardous waste after July 26, 1982.
- (i) "Remedial action plan" or "RAP" means a special form of an operating license that a facility owner or operator may obtain instead of ~~an construction permit or~~ operating license issued pursuant to part 5 of these rules. The RAP shall authorize the treatment, storage, or disposal of hazardous remediation waste at a remediation waste management site.
- (j) "Remediation waste" means all wastes and hazardous wastes, and all media, including groundwater, surface water, soils, and sediments, and debris, that are managed for implementing cleanup.
- (k) "Remediation waste management site" means a facility where an owner or operator is or will be treating, storing, or disposing of hazardous remediation wastes. A remediation waste management site

is not a facility that is subject to corrective action under R 299.9629, but is subject to the corrective action requirements of part 111 of the act and these rules if the site is located in such a facility.

(l) "Representative sample" means a sample of a universe or whole that can be expected to exhibit the average properties of the universe or whole.

(m) "Retention time" means the minimum time hazardous waste is subjected continuously to a required combustion zone temperature in an incinerator.

(n) "Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

(o) "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

(p) "Saturated zone" or "zone of saturation" means that part of the earth's crust in which all voids are filled with water.

(q) "Scrap metal" means bits and pieces of metal parts, such as bars, turnings, rods, sheets, wire, or metal pieces, which may be combined together with bolts or by soldering, such as radiators, scrap automobiles, and railroad car boxes, and which, when worn or superfluous, may be recycled.

(r) "Secondary monitoring parameter" means ions such as calcium, sodium, magnesium, iron, chloride, sulfate, bicarbonate, and carbonate; waste constituents; reaction products; or other parameters which provide an indication of the presence of hazardous constituents in groundwater and which are not subject to the requirements of 40 C.F.R. part 264, subpart F.

(s) "Site identification number" means the number that is assigned by the EPA or the EPA's designee to each generator, transporter, and treatment, storage, or disposal facility. If a generator, transporter, or treatment, storage, or disposal facility manages wastes that are hazardous pursuant to these rules, but are not hazardous pursuant to RCRA, then "site identification number" shall mean an equivalent number that is assigned by the director.

(t) "Sludge" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

(u) "Sludge dryer" means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 BTU per pound of sludge treated on a wet-weight basis.

(v) "Small quantity generator" means a generator who generates less than 1,000 kilograms of hazardous waste in a calendar month.

(w) "Sole source aquifer" means an aquifer designated pursuant to section 1424(e) of the federal safe drinking water act.

(x) "Sorb" means to adsorb or absorb, or both.

(y) "Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both.

(z) "Speculative accumulation" means accumulation before recycle. A material is not accumulated speculatively, however, if the person accumulating the material shows that both of the following requirements are met:

(i) That the material is potentially recyclable and has a feasible means of being recycled.

(ii) That during the calendar year commencing on January 1, the amount of material that is recycled or transferred to a different site for recycling equals not less than 75% by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75% requirement is to be applied to each material of the same type that is recycled in the same way. Materials accumulating in units which would be exempt from regulation under R 299.9204(3)(a) or which are already defined as wastes shall not be included in making the calculation. Materials are no longer in this category once they are removed from accumulation for recycling.

(aa) "Spent material" means any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

(bb) "Staging pile" means an accumulation of solid, non-flowing remediation waste that is not a containment building and that is used only during remedial operations for temporary storage at a facility. Staging piles shall be designated by the director pursuant to R 299.9638.

(cc) "State" means any of the following:

- (i) The several states.
- (ii) The District of Columbia.
- (iii) The Commonwealth of Puerto Rico.
- (iv) The Virgin Islands.
- (v) Guam.
- (vi) American Samoa.
- (vii) The Commonwealth of the Northern Mariana Islands.

(dd) "Storage" means the holding of hazardous waste for a temporary period at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.

(ee) "Sump" means any pit or reservoir which satisfies the definition of "tank" in R 299.9108(a) and those troughs or trenches connected to it that serve to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities. When used in conjunction with the regulation of a landfill, surface impoundment, and waste pile, a sump means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for later removal from the system.

(ff) "Surface impoundment" or "impoundment" means a treatment, storage, or disposal facility or part of a treatment, storage, or disposal facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials, although it may be lined with man-made materials, which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling and aeration pits, ponds, and lagoons.

(gg) "Surface water" means a body of water whose top surface is exposed to the atmosphere and includes the Great Lakes, their connecting waters, all inland lakes and ponds, rivers and streams, impoundments, open drains, and other watercourses, except for drainage ways and ponds used solely for wastewater conveyance, treatment, or control.

R 299.9108 Definitions; T.

Rule 108. As used in these rules:

(a) "Tank" means a stationary device which is designed to contain an accumulation of hazardous waste and which is constructed primarily of nonearthen materials, such as wood, concrete, steel, or plastic, that provide structural support.

(b) "Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

(c) "TEQ" means toxicity equivalence, the international method of relating the toxicity of various dioxin/furan congeners to the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin.

(d) "Thermal treatment" means the treatment of hazardous waste in a device that uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. All of the following are examples of thermal treatment processes:

- (i) Incineration.
- (ii) Molten salt.
- (iii) Pyrolysis.
- (iv) Calcination.

- (v) Wet air oxidation.
- (vi) Microwave discharge.
- (e) "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element and includes mercury-containing ampules that have been removed from the temperature control devices in compliance with the requirements of 40 C.F.R. §§273.13(c)(2) or 273.33(c)(2).
- (f) "Title II of the solid waste disposal act" means the sections of Public Law 89-272 specified in the act.
- (g) "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner that prevents the release of any hazardous waste or any constituent of a hazardous waste into the environment during treatment. An example is a pipe in which waste acid is neutralized.
- (h) "Transfer facility" means any transportation-related facility, including loading docks, parking areas, storage areas, and other similar areas, where shipments of hazardous waste are held during the normal course of transportation.
- (i) "Transportation" means the movement of hazardous waste by air, rail, highway, or water.
- (j) "Transport vehicle" means a motor vehicle or railcar that is used for the transportation of cargo by any mode. Each cargo-carrying body, such as a trailer or railroad freight car, is a separate transport vehicle.
- (k) "Transporter" means a person who is engaged in the off-site transportation of hazardous waste by air, rail, highway, or water.
- (l) "Treatability study" means a study in which a hazardous waste is subjected to a treatment process to determine any of the following:
 - (i) Whether the waste is amenable to the treatment process.
 - (ii) What pretreatment, if any, is required.
 - (iii) The optimal process conditions needed to achieve the desired treatment.
 - (iv) The efficiency of a treatment process for a specific waste or wastes.
 - (v) The characteristics and volumes of residuals from a particular treatment process. Also included in this definition for the purposes of the exemptions specified in R 299.9204 (8), (9), and (10) are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies. A treatability study is not a means to commercially treat or dispose of hazardous waste.
- (m) "Treatment" means any method, technique, or process, including neutralization, that is designed to change the physical, chemical, or biological character or composition of any hazardous waste to neutralize the waste, to recover energy or material resources from the waste, or to render the waste nonhazardous or less hazardous, safer to transport, store, or dispose of, amenable to recovery or storage, or reduced in volume. Treatment includes any activity in processing that is designed to change the physical form or chemical composition of hazardous waste to render it nonhazardous.
- (n) "Treatment facility" means a facility or part of a facility at which hazardous waste, as defined by these rules, is subject to treatment.
- (o) "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.
- (p) "Trial burn" means a test that is conducted pursuant to the requirements of **an operating license** ~~construction permit~~ to determine if the design of an incinerator or other thermal treatment device is satisfactory.
- (q) "Trial operation" means an incinerator test that is conducted pursuant to the requirements of an operating license to determine if the operation of the incinerator or other thermal treatment device is satisfactory.

PART 2. IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

R 299.9202 "Waste" explained.

Rule 202. (1) A waste is any discarded material that is not excluded by R 299.9204 or that is not excluded by a variance granted under R 299.9202(6) and (7). A discarded material is any material that is any of the following:

(a) A material that is abandoned by being disposed of; burned or incinerated; or accumulated, stored, or treated before or instead of being abandoned by being disposed of, burned, or incinerated.

(b) A material which is recycled, or accumulated, stored, or treated before recycling, and which meets 1 of the following criteria:

(i) It is a material listed in subrule (2) of this rule and is used in a manner constituting disposal by being either of the following:

(A) Applied to or placed on the land in a manner that constitutes disposal.

(B) Used to produce products that are applied to or are placed on the land or are otherwise contained in products that are applied to or placed on the land, in which cases the product itself remains a waste. A commercial chemical product listed in R 299.9214 is not a waste if it is applied to the land and that is its ordinary manner of use.

(ii) It is a material listed in subrule (2) of this rule and it is burned to recover energy, is used to produce a fuel, or is otherwise contained in fuels, in which cases the fuel itself remains a waste. A commercial chemical product listed in R 299.9214 is not a waste if it is itself a fuel.

(iii) It is a material listed in subrule (2)(a), (b), or (c) of this rule and it undergoes reclamation, except as provided for in R 299.9204(1)(v).

(iv) It is a material listed in subrule (2)(a), (b), (c), or (d) of this rule and it undergoes speculative accumulation.

(v) It is an inherently waste-like material, having a hazardous waste number of F020, F021, F022, F023, F026, or F028, or is another waste determined by the administrator based on both of the following criteria:

(A) The materials are ordinarily disposed of, burned, or incinerated or the materials contain toxic constituents which are listed in 40 C.F.R. part 261, appendix VIII, and which are not ordinarily found in raw materials or products for which the materials substitute or are found in raw materials or products in smaller concentrations, and which are not used or reused during the recycling process.

(B) The material might pose a substantial hazard to human health and the environment when recycled.

(vi) It is an inherently waste-like material which is a secondary material, which is fed to a halogen acid furnace, and which exhibits a characteristic of a hazardous waste or is listed as a hazardous waste pursuant to part 2 of these rules, except for brominated material that meets all of the following criteria:

(A) The material contains a bromine concentration of not less than 45%.

(B) The material contains less than a total of 1% of the toxic organic compounds listed in 40 C.F.R. part 261, appendix VIII.

(C) The material is processed continually on-site in the halogen acid furnace by direct conveyance such as hard piping.

(c) It is a military munition identified as a waste under R 299.9817.

(2) Any of the following materials may be wastes under subrule (1) of this rule:

(a) Spent materials.

(b) Sludges and by-products listed in R 299.9220 to R 299.92223.

(c) Scrap metal **that is not other than excluded scrap metal under R 299.9204.**

(d) Sludges and by-products that exhibit a characteristic of hazardous waste.

(e) Commercial chemical products listed in R 299.9214.

(3) Except as provided in subrule (4) of these rules, materials are not wastes if they can be shown to be recycled by any of the following means:

(a) By being used or reused as ingredients in an industrial process to make a product if the materials are not being reclaimed.

(b) By being used or reused as effective substitutes for commercial products.

(c) By being returned to the original process from which they are generated without first being reclaimed or placed on the land. The material must be returned as a substitute for feedstock materials. If the original process to which the material is returned is a secondary process, then the materials must be managed so that they are not placed on the land.

In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion under R 299.9204(1)(v) apply rather than this subrule.

(4) All of the following materials are wastes, even if the recycling involves use, reuse, or return to the original process described in subrule (3) of this rule:

(a) Materials used in a manner constituting disposal or used to produce products that are applied to the land.

(b) Materials burned for energy recovery, used to produce a fuel, or contained in fuels.

(c) Materials accumulated speculatively.

(d) Inherently waste-like materials listed in subrule (1)(b)(v) and (vi) of this rule.

(5) Respondents in actions to enforce regulations implementing part 111 of the act who raise a claim that a certain material is not waste or is conditionally exempt from regulation shall demonstrate that there is a known market or disposition for the material and that the respondent meets the terms of exclusion or exemption. In doing so, the respondent shall provide appropriate documentation, such as contracts showing that a second person uses the material as an ingredient in a production process, to demonstrate that the material is not a waste or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials shall show that they have the necessary equipment for recycling the materials.

(6) The director may determine, on a case-by-case basis, that the following recycled materials are not wastes:

(a) Materials that are accumulated speculatively without sufficient amounts being recycled, as defined in R 299.9107.

(b) Materials that are reclaimed and then reused within the original production process in which they were generated.

(c) Materials that have been reclaimed, but must be reclaimed further before the materials are completely recovered.

(7) The director shall use the criteria and procedures outlined in 40 C.F.R. §§260.31 and 260.33 for making determinations under subrule (6) of this rule.

(8) The provisions of 40 C.F.R. §§260.31, 260.33, 261.31, 261.32, and 261.33 are adopted by reference in R 299.11003, with the exception that ~~the word "director"~~ shall replace ~~the word "regional administrator."~~

R 299.9203 "Hazardous waste" explained.

Rule 203. (1) A waste, as explained in R 299.9202, is a hazardous waste if it is not excluded from regulation pursuant to R 299.9204(1) or (2) and if it meets any of the following criteria:

(a) It exhibits any of the characteristics of hazardous waste identified in R 299.9212.

(b) It is listed in R 299.9213 or R 299.9214 and has not been excluded from the lists pursuant to R 299.9211.

(c) It is a mixture of a waste and 1 or more hazardous wastes that are listed in R 299.9213 or R 299.9214 and has not been excluded from this subdivision pursuant to R 299.9211 or subrules (7) or (8) of this rule; however, mixtures of wastes and hazardous wastes that are listed in R 299.9213 and R 299.9214 are not hazardous wastes, except by application of subdivision (a) or (b) of this subrule, if the generator can demonstrate that the mixture consists of wastewater which, with respect to discharge, is subject to regulation pursuant to either section 402 or section 307(b) of the federal clean water act, including wastewater at facilities that have eliminated the discharge of wastewater, and is 1 of the following:

(i) One or more of the following spent solvents that are listed in R 299.9213, if the maximum total weekly usage of the solvents, other than the amounts that can be demonstrated not to be discharged to wastewater, divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system is not more than 1 part per million or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system, at facilities subject to regulation under parts 60, 61, or 63 of the federal clean air act or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions, is not more than 1 part per million on an average weekly basis:

(A) Carbon tetrachloride.

(B) Tetrachloroethylene.

(C) Trichloroethylene.

(D) Benzene.

(E) Scrubber waters derived from the combustion of the spent solvents listed in subparagraphs (A) to (D) of this paragraph.

Any facility that uses benzene as a solvent and claims this exemption shall use an aerated biological wastewater treatment system and only lined surface impoundments or tanks before secondary clarification in the wastewater treatment system. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the director. A facility shall file a revised sampling and analysis plan if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location at the headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A facility shall be eligible for the direct monitoring option once ~~it~~^{they} receives confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if ~~the director~~^{he or she} finds that the sampling and analysis plan does not include the required information or the plan parameters do not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the director rejects the sampling and analysis plan or finds that the facility is not following the sampling and analysis plan, ~~the director~~^{he or she} shall notify the facility that it must cease the use of the direct monitoring option until the bases for the rejection are corrected.

(ii) One or more of the following spent solvents that are listed in R 299.9213, if the maximum total weekly usage of the solvents, other than the amounts that can be demonstrated not to be discharged to wastewater, divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system is not more than 25 parts per million or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system, at facilities subject to regulation under parts 60, 61, or 63 of the federal clean air act or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions, is not more than 25 parts per million on an average weekly basis:

(A) Methylene chloride.

(B) 1,1,1-Trichloroethane.

- (C) Chlorobenzene.
- (D) o-dichlorobenzene.
- (E) Cresols.
- (F) Cresylic acid.
- (G) Nitrobenzene.
- (H) Toluene.
- (I) Methyl ethyl ketone.
- (J) Carbon disulfide.
- (K) Isobutanol.
- (L) Pyridine.
- (M) Spent chlorofluorocarbon solvents.
- (N) 2-ethoxyethanol.
- (O) Scrubber waters derived from the combustion of the spent solvents listed in subparagraphs (A) to (N) of this paragraph.

Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the director. A facility shall file a revised sampling and analysis plan if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location at the headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A facility shall be eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if ~~the director~~ **he or she** finds that the sampling and analysis plan does not include the required information or the plan parameters do not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the director rejects the sampling and analysis plan or finds that the facility is not following the sampling and analysis plan, ~~the director~~ **he or she** shall notify the facility that it must cease the use of the direct monitoring option until the bases for the rejection are corrected.

(iii) One or more of the following wastes that are listed in R 299.9213 if the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation.

- (A) Heat exchanger bundle cleaning sludge from the petroleum refining industry, K050.
- (B) Crude oil storage tank sediment from petroleum refining operations, K169.
- (C) Clarified slurry oil tank sediment or in-line filter/separation solids from petroleum refining operations, K170.
- (D) Spent hydrotreating catalyst, K171.
- (E) Spent hydrorefining catalyst, K172.

(iv) A discarded hazardous waste, commercial chemical product, or chemical intermediate listed in R 299.9213 or R 299.9214, arising from de minimis losses of the materials from manufacturing operations in which the materials are used as raw materials or are produced in the manufacturing process. For the purpose of this paragraph, de minimis losses are inadvertent releases to a wastewater treatment system, including any of the following:

- (A) Losses from normal material handling operations, such as spills from the unloading or transfer of materials from bins or other containers or leaks from pipes, valves, or other devices that are used to transfer materials.
- (B) Minor leaks of process equipment, storage tanks, or containers.
- (C) Leaks from well-maintained pump packings and seals.
- (D) Sample purgings.
- (E) Relief device discharges.
- (F) Discharges from safety showers and the rinsing and cleaning of personal safety equipment.

(G) Rinsate from empty containers or from containers that are rendered empty by that rinsing. Any manufacturing facility that claims an exemption for de minimis quantities of wastes listed in R 299.9214, or any nonmanufacturing facility that claims an exemption for de minimis quantities of wastes listed in R 299.9213 or R 299.9214 shall either have eliminated the discharge of wastewaters or have included in its federal clean water act permit application or submission to its pretreatment control authority the constituents for which each waste was listed in accordance with 40 C.F.R. part 261, appendix VII, and the constituents identified in 40 C.F.R. §268.40 for which each waste has a treatment standard. A facility shall be eligible to claim the exemption once notification of the possible de minimis releases have been provided via the clean water act permit application or the pretreatment control authority submission. A copy of the federal clean water act permit application or the submission to the pretreatment control authority shall be placed in the facility's on-site files.

(v) Wastewater which results from laboratory operations and which contains toxic (T) wastes listed in R 299.9213 or R 299.9214 if the annualized average flow of laboratory wastewater is not more than 1% of total wastewater flow into the headworks of the facility's wastewater treatment or pretreatment system or if the wastes' combined annualized average concentration is not more than 1 part per million in the headworks of the facility's wastewater treatment or pretreatment facility. Toxic (T) wastes which are used in laboratories and which are demonstrated not to be discharged to wastewater shall not be included in the calculation.

(vi) Wastewater from the production of carbamates and carbamoyl oximes, K157, if the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine, including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or recovered, divided by the average weekly flow of process wastewater before any dilutions into the headworks of the facility's wastewater treatment system is not more than a total of 5 parts per million by weight or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system is not more than 5 parts per million on an average weekly basis. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the director. A facility shall file a revised sampling and analysis plan if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location at the headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A facility shall be eligible for the direct monitoring option once ~~it~~^{they} receives confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if ~~the director~~^{he or she} finds that the sampling and analysis plan does not include the required information or the plan parameters do not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the director rejects the sampling and analysis plan or finds that the facility is not following the sampling and analysis plan, ~~the director~~^{he or she} shall notify the facility that it must cease the use of the direct monitoring option until the bases for the rejection are corrected.

(vii) Wastewater derived from the treatment of organic waste from the production of carbamates and carbamoyl oximes, K156, if the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine before any dilutions into the headworks of the facility's wastewater treatment system is not more than a total of 5 milligrams per liter or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system is not more than 5 milligrams per liter on an average weekly basis. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the director. A facility shall file a revised sampling and analysis plan if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location at the headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A

facility shall be eligible for the direct monitoring option once ~~it~~^{they} receives confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if ~~the director~~^{he or she} finds that the sampling and analysis plan does not include the required information or the plan parameters do not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the director rejects the sampling and analysis plan or finds that the facility is not following the sampling and analysis plan, ~~the director~~^{he or she} shall notify the facility that it must cease the use of the direct monitoring option until the bases for the rejection are corrected.

(d) It is a mixture of a waste and a hazardous waste that meets the characteristic of severe toxicity pursuant to R 299.9212(5).

(e) It is a used oil that contains more than 1,000 parts per million total halogens. Used oil that contains more than 1,000 parts per million is presumed to be a hazardous waste and is regulated as such under part 111 of the act and these rules. A person may rebut the presumption by demonstrating that the used oil does not contain hazardous waste. The demonstration may be made by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents that are listed in 40 C.F.R. part 261, appendix VIII. The rebuttable presumption rule does not apply to the following materials:

(i) Metalworking oils or fluids that contain chlorinated paraffins if the oils or fluids are processed through a tolling agreement as specified in 40 C.F.R. §279.24(c) to reclaim the oils or fluids. The rebuttable presumption does apply, however, if the oils or fluids are recycled in any other manner or are disposed of.

(ii) Used oils that are contaminated with chlorofluorocarbons which have been removed from refrigeration units if the chlorofluorocarbons are destined for reclamation. The rebuttable presumption does apply, however, if the used oils are contaminated with chlorofluorocarbons that have been mixed with used oil from sources other than refrigeration units.

(2) A waste that is not excluded from regulation pursuant to R 299.9204(1) or (2) becomes a hazardous waste when any of the following events occur:

(a) In the case of a waste that is listed in R 299.9213 or R 299.9214, when the waste first meets the listing description.

(b) In the case of a mixture of waste and one or more listed hazardous wastes or severely toxic wastes, when a waste that is hazardous pursuant to R 299.9212(5), R 299.9213, or R 299.9214 is first added to the waste.

(c) In the case of any other waste, including a waste mixture, when the waste exhibits any of the characteristics identified in R 299.9212.

(3) Unless and until it meets the criteria of subrule (5) of this rule, a hazardous waste will remain a hazardous waste, and, except as provided in subrules (4), (7), and (8) of this rule, any waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate, but not including precipitation runoff, is a hazardous waste. Materials that are reclaimed from wastes and that are used beneficially are not wastes and hence are not hazardous wastes pursuant to this subrule, unless the reclaimed material is burned for energy recovery or used in a manner that constitutes disposal.

(4) All of the following wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit 1 or more of the characteristics of hazardous waste:

(a) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry, as defined by standard industrial codes 331 and 332 in the office of management and budget document entitled "Standard Industrial Classification Manual."

(b) Wastes from burning any of the materials exempted from regulation by R 299.9206(3)(c) to (f).

(c) Nonwastewater residues, such as slag, which result from high temperature metals recovery processing of K061, K062, or F006 waste in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations, or industrial furnaces and which are disposed of in units regulated under part 115 of the act, if the residues are in compliance with the specified generic exclusion levels. Testing requirements shall be incorporated in a facility's waste analysis plan or generator's self-implementing waste analysis plan. At a minimum, samples of residues shall be collected and analyzed quarterly or when the process or operation generating the waste changes. A person who claims this exclusion in an enforcement action shall have the burden of proving, by clear and convincing evidence, that the material meets all of the exclusion requirements:

(i) For K061 and K062 nonwastewater high temperature metals recovery residues, the specified generic exclusion levels are as follows:

- (A) Antimony, 0.10 mg/l.
- (B) Arsenic, 0.50 mg/l.
- (C) Barium, 7.6 mg/l.
- (D) Beryllium, 0.010 mg/l.
- (E) Cadmium, 0.050 mg/l.
- (F) Chromium (total), 0.33 mg/l.
- (G) Lead, 0.15 mg/l.
- (H) Mercury, 0.009 mg/l.
- (I) Nickel, 1.0 mg/l.
- (J) Selenium, 0.16 mg/l.
- (K) Silver, 0.30 mg/l.
- (L) Thallium, 0.020 mg/l.
- (M) Zinc, 70 mg/l.

(ii) For F006 nonwastewater high temperature metals recovery residues, the specified generic exclusion levels are as follows:

- (A) Antimony, 0.10 mg/l.
- (B) Arsenic, 0.50 mg/l.
- (C) Barium, 7.6 mg/l.
- (D) Beryllium, 0.010 mg/l.
- (E) Cadmium, 0.050 mg/l.
- (F) Chromium (total), 0.33 mg/l.
- (G) Cyanide (total), 1.8 mg/kg.
- (H) Lead, 0.15 mg/l.
- (I) Mercury, 0.009 mg/l.
- (J) Nickel, 1.0 mg/l.
- (K) Selenium, 0.16 mg/l.
- (L) Silver, 0.30 mg/l.
- (M) Thallium, 0.020 mg/l.
- (N) Zinc, 70 mg/l.

(iii) For nonwastewater residues resulting from the high temperature metals recovery processing of K061, K062, or F006 waste which meet the generic exclusion levels specified in this subdivision and which do not exhibit any hazardous waste characteristic, and which are sent to a unit regulated under part 115 of the act, the person claiming the exclusion shall send a 1-time notification and certification to the director. The notification and certification shall be in compliance with all of the following provisions:

(A) The notification and certification shall be maintained at the facility.

(B) The notification and certification shall be updated by the person claiming the exclusion if the process or operation generating the waste changes or if the unit regulated under part 115 of the act that is receiving the waste changes. However, the director need only be notified on an annual basis, by the end of the calendar year, if a change occurs.

(C) The notification shall include all of the following information:

(1) The name and address of the unit regulated under part 115 of the act that is receiving the waste shipment.

(2) The site identification number and treatability group of the waste at the initial point of generation.

(3) The treatment standards applicable to the waste at the initial point of generation.

(D) The certification shall be signed by an authorized representative and shall include the following statement: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

(d) Biological treatment sludge from the treatment of organic wastes from the production of carbamates and carbamoyl oximes, K156, or wastewaters from the production of carbamates and carbamoyl oximes, K157.

(e) Catalyst inert support media separated from either or both of the following wastes listed in R 299.9213:

(i) Spent hydrotreating catalyst, K171.

(ii) Spent hydrotreating catalyst, K172.

(5) Any waste that is described in subrule (3) of this rule is not a hazardous waste if it is in compliance with the following criteria, as applicable:

(a) In the case of any waste, it does not exhibit any of the characteristics of hazardous waste that are identified in R 299.9212. However, a waste that exhibits a characteristic at the point of generation may still be subject to the requirements of 40 C.F.R. part 268, even if the waste does not exhibit a characteristic at the point of land disposal.

(b) In the case of a waste which is listed in R 299.9212(5), R 299.9213, or R 299.9214, which contains a waste that is listed in these rules, or which is derived from a waste that is listed in these rules, the waste also has been excluded from regulation pursuant to R 299.9211.

(6) Notwithstanding subrules (1) to (5) of this rule and if the debris, as defined in 40 C.F.R. part 268, does not exhibit a hazardous characteristic identified in R 299.9212, the following materials are not subject to regulation under part 111 of the act and these rules, except for R 299.9809 to R 299.9816:

(a) Hazardous debris that has been treated using 1 of the required extraction or destruction technologies specified in table 1 of 40 C.F.R. §268.45. A person who claims this exclusion in an enforcement action shall have the burden of proving, by clear and convincing evidence, that the material meets all of the exclusion requirements.

(b) Debris that the director, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

(7) A hazardous waste that is listed in R 299.9213 or R 299.9214 solely because it exhibits 1 or more characteristics of ignitability, corrosivity, or reactivity, as defined under R 299.9212, is not a hazardous waste, if the waste no longer exhibits any characteristic of hazardous waste identified in R 299.9212. However, the waste remains subject to 40 C.F.R. part 268, as applicable, even if the waste no longer exhibits a characteristic at the point of land disposal. This exclusion is limited to any of the following:

(a) A mixture of a waste and a hazardous waste listed in R 299.9213 or R 299.9214 solely because it exhibits 1 or more characteristics of ignitability, corrosivity, or reactivity which is generated as a result

of a cleanup conducted at the individual site of generation pursuant to part 31, part 111, part 201, part 213, or CERCLA.

(b) A waste generated from the treatment, storage, or disposal of a hazardous waste listed in R 299.9213 or R 299.9214 solely because it exhibits the characteristic of ignitability.

(c) A mixture of a waste excluded from regulation under R 299.9204(2)(h) and a hazardous waste listed in R 299.9213 or R 299.9214 solely because it exhibits 1 or more of the characteristics of ignitability, corrosivity, or reactivity which is generated as a result of a cleanup conducted at the individual site of generation pursuant to part 31, part 111, part 201, part 213, or CERCLA.

(8) Hazardous waste that contains radioactive waste is no longer a hazardous waste when it meets the eligibility criteria and conditions of R 299.9822 and R 299.9823. This exclusion is limited to either of the following:

(a) A mixture of a waste and an eligible radioactive mixed waste.

(b) A waste generated from the treatment, storage, or disposal of an eligible radioactive mixed waste.

(9) The office of management and budget document entitled "Standard Industrial Classification Manual" is adopted by reference in R 299.11007.

R 299.9204 Exclusions.

Rule 204. (1) The following materials are not wastes for the purpose of part 111 of the act and these rules:

(a) Domestic sewage and any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly owned treatment works for treatment. Domestic sewage means untreated sanitary wastes that pass through a sewer system.

(b) Industrial wastewater discharges that are point source discharges subject to regulation pursuant to section 402 of the federal clean water act, as amended, except for discharges to injection wells.

(c) Irrigation return flows.

(d) Source, special nuclear, or by-product material as defined by the atomic energy act of 1954, as amended, 42 U.S.C. §2011 et seq.

(e) Materials which are subjected to in-situ mining techniques and which are not removed from the ground as part of the extraction process.

(f) Pulping liquors that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless the liquors are accumulated speculatively, as defined in R 299.9107.

(g) Spent sulfuric acid that is used to produce virgin sulfuric acid, unless the spent acid is accumulated speculatively, as defined in R 299.9107.

(h) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated and where they are reused in the production process, if all of the following provisions apply:

(i) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance.

(ii) The reclamation does not involve controlled flame combustion, such as occurs in boilers, industrial furnaces, or incinerators.

(iii) The secondary materials are not accumulated in such tanks for more than 12 months without being reclaimed.

(iv) The reclaimed material is not used to produce a fuel and is not used to produce products that are used in a manner that constitutes disposal.

(i) Spent wood preserving solutions which have been reclaimed and which are reused for their original intended purpose.

(j) Wastewaters from the wood preserving process which have been reclaimed and which are reused to treat wood.

(k) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, if the residue, if shipped, is shipped, in containers and is not land disposed before recovery.

(l) Oil-bearing hazardous secondary materials such as sludges, by-products, and spent materials, that are generated at a petroleum refinery (SIC code 2911) and are inserted into the petroleum refining process (SIC code 2911), including distillation, catalytic cracking, fractionation, **gasification**, or thermal cracking units, unless the material is placed on the land, or accumulated speculatively before being so recycled. Materials inserted into thermal cracking units are excluded under this subdivision if the coke product does not exhibit a characteristic of a hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the same petroleum refinery where they are generated, or sent directly to another refinery, and still be excluded under this subdivision. Except as provided for in subdivision (m) of this subrule, oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry are not excluded under this subdivision. Residuals generated from processing or recycling materials excluded under this subdivision, where such materials as generated would have otherwise met a listing under R 299.9213 or R 299.9214, are designated as F037 wastes when disposed of or intended for disposal.

(m) Recovered oil that is recycled in the same manner and with the same conditions as described in subdivision (l) of this subrule. Recovered oil is oil that has been reclaimed from secondary materials, including wastewater, generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto (SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4789, 4922, 4923, 5171, and 5172). Recovered oil does not include oil-bearing hazardous wastes listed in part 2 of these rules. However, oil recovered from oil-bearing hazardous wastes listed in part 2 of these rules may be considered recovered oil. Recovered oil also does not include used oil as defined in R 299.9109.

(n) EPA hazardous waste numbers K060, K087, K141, K142, K143, K144, K145, K147, and K148 and any wastes from the coke by-products processes that are hazardous only because they exhibit the toxicity characteristic specified in R 299.9212 when, after generation, the materials are recycled to coke ovens or to the tar recovery process as a feedstock to produce coal tar or are mixed with coal tar before the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point that the wastes are generated to the point that they are recycled to coke ovens or tar recovery or refining processes or are mixed with coal tar.

(o) Materials which are reclaimed from used oil and which are used beneficially if the materials are not burned for energy recovery or used in a manner that constitutes disposal of the materials.

(p) Excluded scrap metal that is being recycled.

(q) Shredded circuit boards that are being recycled if both of the following requirements are met:

(i) The shredded circuit boards are stored in containers sufficient to prevent a release to the environment before recovery.

(ii) The shredded circuit boards are free of mercury switches, mercury relays, and nickel-cadmium batteries and lithium batteries.

(r) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with 40 C.F.R. §63.446(e). This exemption applies only to combustion at the mill generating the condensates.

(s) Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process (SIC code 2911) along with normal petroleum refinery process streams, provided both the following requirements are met:

(i) The oil is hazardous only because it exhibits the characteristic of ignitability as defined in R 299.9212 or toxicity for benzene as defined in R 299.9212 and R 299.9217.

(ii) The oil generated by the organic chemical manufacturing facility is not placed on the land or speculatively accumulated before being recycled into the petroleum refining process.

(t) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land or speculatively accumulated.

(u) Before reuse, the wood preserving wastewaters and spent wood preserving solutions described in subdivisions (i) and (j) of this subrule if all of the following requirements are met:

(i) The wood preserving wastewaters and spent wood preserving solutions are reused on site at water borne plants in the production process for their original intended use.

(ii) Before reuse, the wastewaters and spent wood preserving solutions are managed to prevent releases to either the land or groundwater or both.

(iii) Units used to manage wastewaters or spent wood preserving solutions before reuse can be visually or otherwise determined to prevent releases to either land or groundwater.

(iv) Drip pads used to manage the wastewaters or spent wood preserving solutions before reuse are in compliance with 40 C.F.R. part 265, subpart W regardless of whether the plant generates a total of less than 1,000 kilograms per month of hazardous waste.

(v) Before operating pursuant to this exclusion, the plant owner or operator complies with all of the following requirements otherwise the exclusion shall not apply:

(A) Submits a 1-time notification to the director stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulations."

(B) The owner or operator maintains a copy of the 1-time notification required pursuant to subparagraph (v) of this subdivision in its on-site records until closure of the facility.

(C) If the plant voids the exclusion by not complying with the exclusion conditions and wishes to have its wastes excluded again, it shall apply to the director for reinstatement. The director may reinstate the exclusion upon finding that the plant has returned to compliance with all of the conditions and that violations are not likely to recur.

(v) Spent materials, other than hazardous waste listed under R 299.9213 or R 299.9214, that are generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing or by beneficiation if all of the following requirements are met:

(i) The spent material is legitimately recycled to recover minerals, acids, cyanide, water, or other values.

(ii) The spent material is not speculatively accumulated.

(iii) Except as provided under paragraph (iv) of this subdivision, the spent material is stored in tanks, containers, or buildings which meet the following requirements as applicable:

(A) If using a building, the building shall be an engineered structure with a floor, walls, and a roof all of which are made of non-earthen materials providing structural support, except smelter buildings which may have partially earthen floors provided that the spent material is stored on the non-earthen portion, have a roof which is suitable for diverting rainwater away from the foundation, and be designed, constructed, and operated to prevent significant releases of the material to the environment.

(B) If using a tank, the tank shall be free standing, not meet the definition of a surface impoundment, be manufactured of a material suitable for containment of its contents, be operated in a manner which controls fugitive dust if the tank contains any particulate which may be subject to wind dispersal, and be designed, constructed, and operated to prevent significant releases of the material to the environment.

(C) If using a container, the container shall be free standing and be manufactured of a material suitable for containment of its contents, be operated in a manner which controls fugitive dust if the container contains any particulate which may be subject to wind dispersal, and be designed, constructed, and operated to prevent significant releases of the material to the environment.

(iv) The spent materials are placed on pads if all of the following requirements are met:

(A) The solid mineral processing spent materials do not contain any free liquid.

(B) The pad is designed, constructed, and operated to prevent significant releases of the spent material into the environment.

(C) The pad provides the same degree of containment afforded by non-RCRA tanks, containers, and buildings eligible for this exclusion.

(D) The pad is designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material.

(E) The pad is capable of withstanding physical stresses associated with placement and removal.

(F) The pad has run-on/run-off controls.

(G) The pad is operated in a manner which controls fugitive dust.

(H) The integrity of the pad is ensured through inspections and maintenance programs.

(I) The director makes a site-specific determination that the materials may be placed on a pad rather than in tanks, containers, or buildings. In making such a determination, the director shall consider whether storage on a pad poses the potential for significant releases via groundwater, surface water, and air exposure pathways. When assessing the groundwater, surface water, and air exposure pathways, the director shall consider the volume and physical and chemical properties of the spent material, including its potential for migration off of the pad, the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway, and the possibility and extent of harm to human and environmental receptors via each exposure pathway. Before making such a determination, the director shall provide notice and the opportunity for comment to all persons potentially interested in the determination. Notice may be accomplished by placing notice of the action in major local newspapers or broadcasting notice over local radio stations.

(v) The owner or operator provides notice to the director which provides the following information and is updated when there is a change in the type of materials recycled or the location of the recycling process:

(A) The types of materials to be recycled.

(B) The type and location of storage units and recycling processes.

(C) The annual quantities expected to be placed in land-based units.

(vi) For the purposes of the exclusion under R 299.9204(2)(h), mineral processing spent materials shall be the result of mineral processing and may not include any hazardous wastes listed under R 299.9213 or R 299.9214. Listed hazardous wastes and characteristic hazardous waste generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of waste.

(w) Comparable fuels or comparable syngas fuels that meet the requirements of R 299.9230.

(x) Hazardous secondary materials used to make zinc fertilizers, if the following conditions are met:

(i) Hazardous secondary materials used to make zinc micronutrient fertilizers shall not be accumulated speculatively.

(ii) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers shall comply with all of the following requirements:

(A) Submit a 1-time notice to the director which contains the name, address, and site identification number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin

managing excluded, zinc-bearing hazardous secondary materials under the conditions of this subdivision.

(B) Store the excluded secondary material in buildings, tanks, or containers that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose shall be an engineered structure made of non-earthen materials that provide structural support, and shall have a floor, walls, and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose shall be structurally sound and, if outdoors, shall have roofs or covers that prevent contact with wind and rain. Containers that are used for this purpose shall be kept closed except when it is necessary to add or remove material, and shall be in sound condition. Containers that are stored outdoors shall be managed within storage areas that have containment structures or systems sufficiently impervious to contain leaks, spills, and accumulated precipitation; provide for effective drainage and removal of leaks, spills, and accumulated precipitation; and prevent run-on into the containment system.

(C) With each off-site shipment of excluded hazardous secondary materials, provide written notice to the receiving facility that the material is subject to the conditions of this subdivision.

(D) Maintain at the generator's or intermediate handler's facility for no less than 3 years records of all shipments of excluded hazardous secondary materials. At a minimum, the records for each shipment shall include the name of the transporter, the date of the shipment, the name and address of the facility that received the excluded material, documentation confirming receipt of the shipment, and the type and quantity of excluded secondary material in each shipment.

(iii) Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials shall comply with all of the following requirements:

(A) Store excluded hazardous secondary material pursuant to the storage requirements for generators and intermediate handlers, as specified in paragraph (ii) of this subdivision.

(B) Submit a 1-time notification to the director which contains the name, address, and site identification number of the manufacturing facility and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions of this subdivision.

(C) Maintain for no less than 3 years records of all shipments of excluded hazardous secondary materials received by the manufacturer. At a minimum, the records for each shipment shall include the name and address of the generating facility, the name of the transporter, the date the materials were received, the quantity of materials received, and a brief description of the industrial process that generated the material.

(D) Submit to the director an annual report which identifies the total quantities of all excluded hazardous secondary materials that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial process from which they were generated.

(iv) Nothing in this subdivision preempts, overrides, or otherwise negates the requirements of R 299.9302 which requires any person who generates a waste to determine if the waste is a hazardous waste.

(v) Interim status and licensed storage units that have been used to store only zinc-bearing hazardous wastes before the submission of the 1-time notice described in paragraph (ii) of this subdivision, and that afterward will be used only to store hazardous secondary materials excluded under this subdivision, are not subject to the closure requirements of part 6 of these rules.

(y) Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under subdivision (x) of this subrule, provided that the following conditions are met:

(i) The fertilizers meet the following contaminant limits, established as the maximum allowable total concentration in fertilizer per 1% of zinc, for metal contaminants:

- (A) Arsenic, 0.3 parts per million.
- (B) Cadmium, 1.4 parts per million.
- (C) Chromium, 0.6 parts per million.
- (D) Lead, 2.8 parts per million.
- (E) Mercury, 0.3 parts per million.
- (ii) The fertilizers meet the contaminant limit for dioxin contaminants of not more than 8 parts per trillion of dioxin, measured as toxic equivalent.
- (iii) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals not less than every 6 months, and for dioxins not less than every 12 months. Testing shall also be performed whenever changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical methods to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. ~~It is the responsibility of the manufacturer~~ The manufacturer shall ensure that the sampling and analysis are unbiased, precise, and representative of the products introduced into commerce.
- (iv) The manufacturer maintains for not less than 3 years records of all sampling and analysis performed for the purposes of determining compliance with the requirements of paragraph (iii) of this subdivision. At a minimum, such records shall include all of the following:
 - (A) The dates and times product samples were taken, and the dates the samples were analyzed.
 - (B) The names and qualifications of the persons taking the samples.
 - (C) A description of the methods and equipment used to take the samples.
 - (D) The name and address of the laboratory facility at which analyses of the samples were performed.
 - (E) A description of the analytical methods used, including any cleanup and sample preparation methods.
 - (F) All laboratory analytical results used to determine compliance with the contaminant limits specified in paragraphs (i) and (ii) of this subdivision.
- (z) Used CRTs that meet any of the following requirements:
 - (i) Used, intact CRTs unless they are disposed or are speculatively accumulated by CRT collectors or glass processors.
 - (ii) Used, intact CRTs when exported for recycling if they meet the requirements of R 299.9231(5).
 - (iii) Used, broken CRTs if they meet the requirements of R 299.9231(1) and (2).
 - (iv) Glass removed from CRTs if it meets the requirements of R 299.9231(3).
- (2) The following wastes are not hazardous wastes for the purposes of part 111 of the act and these rules:
 - (a) Household waste, including household waste that has been collected, transported, stored, treated, disposed of, recovered, or reused. Household waste means any waste material, including garbage, trash, and sanitary wastes in septic tanks, that is derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas. A resource recovery facility that manages municipal waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation pursuant to these rules if the facility is in compliance with both of the following provisions:
 - (i) Receives and burns only household waste from single and multiple dwellings, hotels, motels, and other residential sources and waste from commercial or industrial sources that does not contain hazardous waste.

(ii) Does not accept hazardous wastes and the owner or operator of the facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in the facility.

(b) Wastes which are generated by either of the following and which are returned to the soil as fertilizers:

- (i) The growing and harvesting of agricultural crops.
- (ii) The raising of animals, including animal manures.
- (c) Mining overburden that is returned to the mine site.
- (d) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste that is generated primarily from the combustion of coal or other fossil fuels, except as provided by 40 C.F.R. §266.112 for facilities that burn or process hazardous waste.

(e) Drilling fluids, produced waters, and other wastes that are associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy.

(f) Wastes which fail the test for the toxicity characteristic because chromium is present or wastes that are listed in R 299.9213 or R 299.9214 due to the presence of chromium, which do not fail the test for the toxicity characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that all of the following provisions are met:

- (i) The chromium in the waste is exclusively, or nearly exclusively, trivalent chromium.
- (ii) The waste is generated from an industrial process that uses trivalent chromium exclusively, or nearly exclusively, and the process does not generate hexavalent chromium.
- (iii) The waste is typically and frequently managed in nonoxidizing environments.

(g) The following specific wastes that are in compliance with the standard in subdivision (f) of this subrule, if the wastes do not fail the test for the toxicity characteristic for any other constituent and do not fail the test for any other characteristic:

(i) Chrome (blue) trimmings generated by any of the following subcategories of the leather tanning and finishing industry:

- (A) Hair pulp/chrome, tan/retan/wet finish.
- (B) Hair save/chrome, tan/retan/wet finish.
- (C) Retan/wet finish.
- (D) No beamhouse.
- (E) Through-the-blue.
- (F) Shearling.

(ii) Chrome (blue) shavings generated by any of the following subcategories of the leather tanning and finishing industry:

- (A) Hair pulp/chrome, tan/retan/wet finish.
- (B) Hair save/chrome, tan/retan/wet finish.
- (C) Retan/wet finish.
- (D) No beamhouse.
- (E) hrough-the-blue.
- (F) Shearling.

(iii) Buffing dust generated by any of the following subcategories of the leather tanning and finishing industry:

- (A) Hair pulp/chrome, tan/retan/wet finish.
- (B) Hair save/chrome, tan/retan/wet finish.
- (C) Retan/wet finish.
- (D) No beamhouse.
- (E) Through-the-blue.

(iv) Sewer screenings generated by any of the following subcategories of the leather tanning and finishing industry:

- (A) Hair pulp/chrome, tan/retan/wet finish.
- (B) Hair save/chrome, tan/retan/wet finish.
- (C) Retan/wet finish.
- (D) No beamhouse.
- (E) Through-the-blue.
- (F) Shearling.

(v) Wastewater treatment sludges generated by any of the following subcategories of the leather tanning and finishing industry:

- (A) Hair pulp/chrome, tan/retan/wet finish.
- (B) Hair save/chrome, tan/retan wet finish.
- (C) Retan/wet finish.
- (D) No beamhouse.
- (E) Through-the-blue.
- (F) Shearling.

(vi) Wastewater treatment sludges generated by any of the following subcategories of the leather tanning and finishing industry:

- (A) Hair pulp/chrome, tan/retan/wet finish.
- (B) Hair save/chrome, tan/retan/wet finish.
- (C) Through-the-blue.

(vii) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(viii) Wastewater treatment sludges from the production of TiO₂ pigment using chromium-bearing ores by the chloride process.

(ix) Ink generated by United States postal service in its automated facer canceled systems.

(h) Waste from the extraction, beneficiation, and processing of ores and minerals, including coal, phosphate rock, and overburden from the mining of uranium ore, except as provided in 40 C.F.R. §266.112 for facilities that burn or process hazardous waste. For purposes of this subdivision, the following provisions apply:

(i) Beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briqueting; calcining to remove water or carbon dioxide, or both; roasting, autoclaving, or chlorination, or any combination thereof, in preparation for leaching, except where the roasting/leaching or autoclaving/leaching or chlorination/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing; gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in-situ leaching.

(ii) Waste from the processing of ores and minerals shall include only the following wastes as generated:

- (A) Slag from primary copper processing.
- (B) Slag from primary lead processing.
- (C) Red and brown muds from bauxite refining.
- (D) Phosphogypsum from phosphoric acid production.
- (E) Slag from elemental phosphorus production.
- (F) Gasifier ash from coal gasification.
- (G) Process wastewater from coal gasification.
- (H) Calcium sulfate wastewater treatment plant sludge from primary copper processing.

- (I) Slag tailings from primary copper processing.
- (J) Fluorogypsum from hydrofluoric acid production.
- (K) Process wastewater from hydrofluoric acid production.
- (L) Air pollution control dust/sludge from iron blast furnaces.
- (M) Iron blast furnace slag.
- (N) Treated residue from roasting/leaching of chrome ore.
- (O) Process wastewater from primary magnesium processing by the anhydrous process.
- (P) Process wastewater from phosphoric acid production.
- (Q) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production.
- (R) Basic oxygen furnace and open hearth furnace slag from carbon steel production.
- (S) Chloride process waste solids from titanium tetrachloride production.
- (T) Slag from primary zinc processing.
- (iii) Residues derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remain excluded under subrule (2) of this rule if the owner or operator meets both of the following requirements:
 - (A) Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials.
 - (B) Legitimately reclaims the secondary mineral processing materials.
- (i) Mixtures of a waste that is excluded from regulation pursuant to subdivision (h) of this subrule and any other waste that exhibits a hazardous waste characteristic pursuant to R 299.9212 and that is not listed pursuant to R 299.9213 or R 299.9214, such that the resultant mixture does not exhibit any hazardous waste characteristic that would have been exhibited by the non-excluded waste alone if the mixture had not occurred.
- (j) Cement kiln dust waste, except as provided in 40 C.F.R. §266.112 for facilities that burn or process hazardous waste.
- (k) Waste which consists of discarded arsenical-treated wood or wood products, which fails the test for the toxicity characteristic for hazardous waste numbers D004 through D017 and which is not a hazardous waste for any other reason, if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.
- (l) Petroleum-contaminated media and debris that fail the test for the toxicity characteristic pursuant to R 299.9212 for hazardous waste numbers D018 through D043 only and are subject to the corrective action regulations pursuant to 40 C.F.R. part 280.
- (m) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, if the refrigerant is reclaimed for further use.
- (n) Non-terne plated used oil filters that are not mixed with wastes that are identified in R 299.9213 or R 299.9214, or both, if the oil filters have been gravity hot-drained using 1 of the following methods:
 - (i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining.
 - (ii) Hot-draining and crushing.
 - (iii) Dismantling and hot-draining.
 - (iv) Any other equivalent hot-draining method that will remove used oil.
- (o) Leachate or gas condensate collected from landfills where certain wastes have been disposed of provided that all of the following requirements are met:
 - (i) The wastes disposed would meet 1 or more of the listing descriptions for hazardous waste numbers K169, K170, K171, K172, K174, K175, K176, K177, K178, and K181 if these wastes had been generated after the effective date of the listing.

(ii) The wastes described in paragraph (i) of this subdivision were disposed before the effective date of the listing.

(iii) The leachate or gas condensate do not exhibit any characteristic of a hazardous waste and are not derived from any other listed hazardous waste.

(iv) The discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a publicly owned treatment works by truck, rail, or dedicated pipe, is subject to regulations under sections 307(b) or 402 of the federal clean water act.

(v) As of February 13, 2001, leachate or gas condensate derived from K169, K170, K171, and K172 is no longer exempt if it is stored or managed in a surface impoundment before discharge. As of November 21, 2003, leachate or gas condensate derived from K176, K177, or K178 is no longer exempt if it is stored or managed in a surface impoundment before discharge. After February 26, 2007, leachate or gas condensate derived from K181 will no longer be exempt if it is stored or managed in a surface impoundment before discharge unless the surface impoundment meets both of the following requirements:

(A) The surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation.

(B) The surface impoundment has a double liner, and the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of subdivision (o) of this subrule after the emergency ends.

(3) The following hazardous wastes are not subject to regulation pursuant to parts 3 to 10 of these rules:

(a) A hazardous waste that is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or a manufacturing process unit or an associated nonwaste treatment manufacturing unit. This exemption does not apply in any of the following circumstances:

(i) Once the waste exits the unit in which it was generated.

(ii) If the unit is a surface impoundment.

(iii) If the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for the manufacturing, storage, or transportation of product or raw materials.

(b) Waste pesticides and pesticide residues which are generated by a farmer from his or her own use and which are hazardous wastes if the pesticide residues are disposed of on the farmer's own farm in a manner that is consistent with the disposal instructions on the pesticide container label and if the farmer empties or cleans each pesticide container pursuant to R 299.9207.

(4) Except as provided in subrule (5) of this rule, a sample of waste or a sample of water, soil, or air that is collected for the sole purpose of testing to determine its characteristics or composition is not subject to part 111 of the act and these rules if 1 of the following provisions is met:

(a) The sample is being transported to a laboratory for the purpose of testing.

(b) The sample is being transported back to the sample collector after testing.

(c) The sample is being stored by the sample collector before transport to a laboratory for testing.

(d) The sample is being stored in a laboratory before testing.

(e) The sample is being stored in a laboratory after testing but before it is returned to the sample collector.

(f) The sample is being stored temporarily in the laboratory after testing for a specific purpose, such as until conclusion of a court case or enforcement action where further testing of the sample might be necessary.

(5) To qualify for the exemption specified in subrule (4) of this rule, a sample collector that ships samples to a laboratory and a laboratory that returns samples to a sample collector shall comply with DOT, United States postal service, or any other applicable shipping requirements. The sample collector

shall only ship a volume that is necessary for testing and analysis and, if the sample collector determines that DOT, United States postal service, or other shipping requirements do not apply to the shipment of the sample, the sample collector shall package the sample so that it does not leak, spill, or vaporize from its packaging and assure that all of the following information accompanies the sample:

- (a) The sample collector's name, mailing address, and telephone number.
- (b) The laboratory's name, mailing address, and telephone number.
- (c) The quantity of the sample.
- (d) The date of shipment.
- (e) A description of the sample.
- (6) The exemption specified in subrule (4) of this rule does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer in compliance with any of the conditions ~~stated~~ in subrule (5) of this rule.

(7) Persons who generate or collect samples for the purpose of conducting treatability studies as defined in R 299.9108 are not subject to the requirements of parts 2, 3, and 4 of these rules or the notification requirements of section 3010 of RCRA and the samples are not included in the quantity determinations specified in R 299.9205 and R 299.9306(4) when the sample is being collected and prepared for transportation by the generator or sample collector, the sample is being accumulated or stored by the generator or sample collector before transportation to a laboratory or testing facility, or the sample is being transported to a laboratory or testing facility for the purpose of conducting a treatability study. The exemption specified in this subrule is applicable to samples of hazardous waste that are being collected and shipped for the purpose of conducting treatability studies if all of the following provisions are complied with:

- (a) The generator or sample collector does not use more than 10,000 kilograms of media that is contaminated with nonacute hazardous waste, 1,000 kilograms of any nonacute hazardous waste other than contaminated media, 1 kilogram of acute or severely toxic hazardous waste, or 2,500 kilograms of media that is contaminated with acute or severely toxic hazardous waste for each process that is being evaluated for each generated waste stream in a treatability study.
- (b) The mass of each sample shipment is not more than 10,000 kilograms. The 10,000-kilograms quantity may be all media contaminated with nonacute hazardous waste or may include 2,500 kilograms of media contaminated with acute or severely toxic hazardous waste, 1,000 kilograms of nonacute hazardous waste, and 1 kilogram of acute or severely toxic hazardous waste.
- (c) The sample shall be packaged and transported so that it will not leak, spill, or vaporize from its packaging during shipment and so that either of the following requirements are met:
 - (i) The transportation of each sample shipment is in compliance with United States department of transportation, United States postal service, or any other applicable shipping requirements.
 - (ii) If the DOT, United States postal service, or other shipping requirements do not apply to the shipment of the sample, all of the following information shall accompany the sample:
 - (A) The name, mailing address, and telephone number of the originator of the sample.
 - (B) The name, address, and telephone number of the facility that will perform the treatability study.
 - (C) The quantity of the sample.
 - (D) The date of the shipment.
 - (E) A description of the sample, including its hazardous waste number.
- (d) The sample is shipped to a laboratory or testing facility that is exempt pursuant to subrule (10) of this rule or has an appropriate RCRA permit, state hazardous waste operating license, or interim status.
- (e) The generator or sample collector maintains all of the following records for 3 years after completion of the treatability study:
 - (i) Copies of the shipping documents.
 - (ii) A copy of the contract with the facility that conducts the treatability study.

- (iii) Documentation that shows all of the following information:
 - (A) The amount of waste that is shipped pursuant to this exemption.
 - (B) The name, address, and site identification number of the laboratory or testing facility that received the waste.
 - (C) The date the shipment was made.
 - (D) If unused samples and residues were returned to the generator.
- (f) The generator reports the information required pursuant to subdivision (e)(iii) of this subrule as part of the data referenced in R 299.9308(1).
- (8) The director may grant requests on a case-by-case basis for up to an additional 2 years for treatability studies involving bioremediation. The director may grant requests on a case-by-case basis for quantity limits in excess of those specified in subrules (7)(a) and (b) and (10)(d) of this rule for up to an additional 5,000 kilograms of media contaminated with nonacute hazardous waste, 500 kilograms of nonacute hazardous waste, 2,500 kilograms of media contaminated with acute or severely toxic hazardous waste, and 1 kilogram of acute or severely toxic hazardous waste. A request may be granted in response to 1 or both of the following requests:
 - (a) A request for authorization to ship, store, and conduct treatability studies on, additional quantities in advance of commencing treatability studies. The director shall consider all of the following factors in determining whether to grant the request:
 - (i) The nature of the technology.
 - (ii) The type of process.
 - (iii) The size of the unit undergoing testing, particularly in relation to scale-up considerations.
 - (iv) The time and quantity of material required to reach steady state operating conditions.
 - (v) Test design considerations such as mass balance calculations.
 - (b) A request for authorization to ship, store, and conduct treatability studies on, additional quantities after initiation or completion of initial treatability studies when any of the following occur:
 - (i) There has been an equipment or mechanical failure during the conduct of a treatability study.
 - (ii) There is a need to verify the results of a previously conducted treatability study.
 - (iii) There is a need to study and analyze alternative techniques within a previously evaluated treatment process.
 - (iv) There is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.
- (9) The additional quantities and time frames allowed under subrule (8) of this rule are subject to this rule. The generator or sample collector shall apply to the director and shall provide, in writing, all of the following information:
 - (a) The reason why the generator or sample collector requires an additional quantity of the sample or time for the treatability study evaluation and the additional quantity or time needed.
 - (b) Documentation accounting for all samples of hazardous waste from the waste stream that have been sent for or undergone treatability studies, including all of the following information:
 - (i) The date that each previous sample from the waste stream was shipped.
 - (ii) The sample quantity of each previous shipment.
 - (iii) The laboratory or testing facility to which the sample was shipped.
 - (iv) What treatability study processes were conducted on each sample shipped.
 - (v) The available results of each treatability study.
 - (c) A description of the technical modifications or change in specifications that will be evaluated and the expected results.
 - (d) If further study is being required due to equipment or mechanical failure, then the applicant shall include information regarding the reason for the failure and also include a description of what

procedures were established, or what equipment improvements have been made, to protect against further equipment or mechanical failure.

(e) Other information that the director considers necessary.

(10) Samples that undergo treatability studies and the laboratory or testing facility that conducts the treatability studies, to the extent the facilities are not otherwise subject to the requirements of part 111 of the act or these rules, are not subject to any of the requirements of these rules or to the notification requirements of section 3010 of RCRA if the conditions of this subrule are met. A mobile treatment unit may qualify as a testing facility subject to this subrule. If a group of mobile treatment units is located at the same site, then the limitations specified in this subrule apply to the entire group of mobile treatment units collectively as if the group were 1 mobile treatment unit. The conditions are as follows:

(a) Not less than 45 days before conducting treatability studies, the facility shall notify the director, in writing, that it intends to conduct treatability studies pursuant to this rule.

(b) The laboratory or testing facility that conducts the treatability study has a site identification number.

(c) Not more than a total of 10,000 kilograms of "as received" media contaminated with nonacute hazardous waste, 2,500 kilograms of media contaminated with acute or severely toxic hazardous waste, or 250 kilograms of other "as received" hazardous waste is subjected to the initiation of treatment in all treatability studies in any single day. "As received" hazardous waste refers to waste as received in the shipment from the generator or sample collector.

(d) The quantity of "as received" hazardous waste that is stored at the facility for the purpose of evaluation in treatability studies is not more than 10,000 kilograms, the total of which may include 10,000 kilograms of media contaminated with nonacute hazardous waste, 2,500 kilograms of media contaminated with acute or severely toxic hazardous waste, 1,000 kilograms of nonacute hazardous waste other than contaminated media, and 1 kilogram of acute or severely toxic hazardous waste. The quantity limitation does not include treatment materials, including nonhazardous waste, that are added to "as received" hazardous waste.

(e) Not more than 90 days have elapsed since the treatability study for the sample was completed, or not more than 1 year, or 2 years for treatability studies involving bioremediation, has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date occurs first.

(f) The treatability study does not involve the placement of hazardous waste on the land or the open burning of hazardous waste.

(g) The facility maintains records, for 3 years following completion of each study, that show compliance with the treatment rate limits, storage time, and quantity limits. All of the following specific information shall be included for each treatability study that is conducted:

(i) The name, address, and site identification number of the generator or sample collector of each waste sample.

(ii) The date the shipment was received.

(iii) The quantity of waste accepted.

(iv) The quantity of "as received" waste in storage each day.

(v) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day.

(vi) The date the treatability study was concluded.

(vii) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the site identification number.

(h) The facility keeps, on site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of each treatability study.

(i) The facility prepares and submits a report to the director by March 15 of each year that includes all of the following information for the previous calendar year:

(i) The name, address, and site identification number of the facility conducting the treatability studies.
(ii) The types, by process, of treatability studies conducted.
(iii) The names and addresses of persons for whom studies have been conducted, including their site identification numbers.

(iv) The total quantity of waste in storage each day.

(v) The total quantity and types of waste subjected to treatability studies.

(vi) When each treatability study was conducted.

(vii) The final disposition of residues and unused sample from each treatability study.

(j) The facility determines if any unused sample or residues generated by the treatability study are hazardous waste pursuant to R 299.9203 and, if so, are subject to these rules, unless the residues and unused samples are returned to the sample originator pursuant to the exemption in subrule (7) of this rule.

(k) The facility notifies the director, by letter, when the facility is no longer planning to conduct any treatability studies at the site.

(11) The disposal of PCB-containing dielectric fluid and electric equipment that contains the fluid as authorized for use and as regulated pursuant to 40 C.F.R. part 761 and fluid and equipment that are hazardous only because they fail the test for the toxicity characteristic for hazardous waste numbers D018 through D043 are not subject to regulation pursuant to parts 2 to 7 and 9 and 10 of these rules.

(12) Dredged material, as defined in 40 C.F.R. §232.2, that is subject to the requirements of a permit that has been issued pursuant to section 404 of the federal water pollution control act, 33 U.S.C. §1344, or section 103 of the marine protection, research, and sanctuaries act of 1972, 33 U.S.C. §1413, is not a hazardous waste for the purposes of part 111 of the act and these rules. For the purposes of this exemption, ~~the term~~ "permit" means any of the following:

(a) A permit issued by the U.S. army corps of engineers or an approved state under section 404 of the federal water pollution control act, 33 U.S.C. §1344.

(b) A permit issued by the U.S. army corps of engineers under section 103 of the marine protection, research, and sanctuaries act of 1972, 33 U.S.C. §1413.

(c) In the case of U.S. army corps of engineers civil works projects, the administrative equivalent of the permits referred to in subdivisions (a) and (b) of this subrule, as provided for in the U.S. army corps of engineers regulations.

(13) The provisions of 40 C.F.R. §261.38, part 280, and part 761 are adopted by reference in R 299.11003.

R 299.9205 Special requirements for hazardous waste generated by conditionally exempt small quantity generators.

Rule 205. (1) A generator is a conditionally exempt small quantity generator if, in a calendar month, any of the following provisions apply:

(a) He or she generates less than or equal to 100 kilograms of hazardous waste in that month and does not accumulate, at any time, more than a total of 1,000 kilograms of hazardous wastes.

(b) He or she generates or accumulates, at any time, acute hazardous waste in quantities less than or equal to the following:

(i) A total of 1 kilogram of acute hazardous wastes that are listed in table 203a, 204a, 204b, or 205a of these rules.

(ii) A total of 100 kilograms of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill into water or on any land of any acute hazardous waste that is listed in table 203a, ~~204a~~, 204b, or 205a of these rules.

(c) He or she generates or accumulates, at any time, waste that satisfies the criteria of the characteristic of severe toxicity pursuant to R 299.9212(5) in quantities less than or equal to 1 kilogram.

(2) Except as provided in subrules (3), (4), (6), and (7) of this rule, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation pursuant to parts 3 to 10 of these rules if the generator complies with the following requirements:

(a) The waste evaluation requirements specified in R 299.9302.

(b) Either treats or disposes of his or her hazardous waste in an on-site facility or ensures delivery to a facility that will store, treat, or dispose of the waste. If the facility is located in the United States, it shall be in compliance with 1 of the following requirements:

(i) Be ~~permitted~~ or licensed pursuant to part 111 of the act for that waste type or be operating pursuant to R 299.9502(3), (4), or (5).

(ii) Be a facility that stores or treats the waste and which is in compliance with the applicable requirements of parts 31, 55, and 115 of the act.

(iii) Be a disposal facility that is in compliance with the applicable requirements of parts 31, 55, and 115 of the act.

(iv) Be a facility that beneficially uses or reuses, or legitimately recycles or reclaims, the waste or treats the waste before the beneficial use or reuse or legitimate recycling or reclamation.

(v) Be an off-site publicly owned treatment works, if the waste is in compliance with all federal, state, and local pretreatment requirements and, if the waste is shipped by vehicle, the conditions of R 299.9503(3)(b) are met.

(vi) Be in another state and be permitted or licensed pursuant to 40 C.F.R. part 270.

(vii) Be in another state and be in interim status pursuant to 40 C.F.R. parts 270 and 265.

(viii) Be in another state and be authorized to manage hazardous waste by the state pursuant to a hazardous waste management program that is approved pursuant to 40 C.F.R. part 271.

(ix) Be in another state and be permitted, licensed, or registered by that state to manage municipal waste which, if managed in a municipal waste landfill, is subject to 40 C.F.R. part 258.

(x) Be in another state and be permitted, licensed, or registered by that state to manage nonmunicipal waste which, if managed in a nonmunicipal waste disposal unit after the effective date of these rules, is subject to 40 C.F.R. §§257.5 to 257.30.

(xi) For universal waste managed pursuant to R 299.9228, be a universal waste handler or destination facility in compliance with R 299.9228.

(c) Accumulates waste in an area where the waste is protected from weather, fire, physical damage, and vandals.

(d) Hazardous waste accumulation is conducted so that hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.

(3) If a generator exceeds the generation or accumulation limits, or both, specified in subrule (1) of this rule, then the generator and all of the accumulated hazardous wastes are subject to the following provisions:

(a) For wastes other than acute or severely toxic hazardous wastes, the special provisions of part 3 of these rules that are applicable to generators that generate ~~between more than~~ 100 kilograms, ~~and but less than~~ 1,000 kilograms, of hazardous waste in a calendar month and the other applicable

requirements of these rules. The time period specified in R 299.9306 for the accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes are more than 1,000 kilograms.

(b) For waste types specified in subrule (1)(b) or (c), or both, of this rule, the requirements of part 3 of these rules that are applicable to generators that generate 1,000 kilograms or more of hazardous waste per calendar month and the other applicable requirements of these rules. The time period specified in R 299.9306 for the accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes exceed 1 or more of the limits specified in subrule (1)(b) or (c) of this rule.

(4) If a person other than the conditionally exempt small quantity generator accumulates hazardous waste generated by a conditionally exempt small quantity generator, then the person and all of the accumulated hazardous wastes shall be in compliance with the following requirements:

(a) If the quantity of hazardous wastes, other than acute or severely toxic hazardous wastes, accumulated on-site is more than 1,000 kilograms, the following requirements:

(i) Place the waste in containers and comply with 40 C.F.R. part 265, subpart I, except for §265.176, and the containment requirements of 40 C.F.R. §264.175.

(ii) Place the waste in tanks and comply with 40 C.F.R. §265.201 and the containment requirements of 40 C.F.R. §§265.191, 265.192, 265.193, and 265.196.

(iii) Clearly mark the date upon which each period of accumulation begins and the hazardous waste number of the waste on each container so that the information is visible for inspection.

(iv) Ensure that while the waste is being accumulated on-site, each waste container and tank is marked clearly with the words "hazardous waste."

(v) Comply with 40 C.F.R. part 265, subpart C.

(vi) Ensure that, at all times, there is at least 1 employee either on the premises or on call who is responsible for coordinating all emergency response measures. The employee is the emergency coordinator and, if on call, shall be available to respond to an emergency by reaching the facility within a short period of time.

(vii) Post, next to the telephone, the name and telephone number of the emergency coordinator; the location of fire extinguishers and spill control material and, if present, fire alarm; and the telephone number of the fire department, unless the facility has a direct alarm.

(viii) Ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

(ix) Ensure that the emergency coordinator or his or her designee responds to any emergencies that arise. An emergency coordinator shall respond as follows:

(A) If there is a fire, call the fire department or attempt to extinguish the fire using a fire extinguisher.

(B) If there is a spill, contain the flow of hazardous waste to the extent possible and, as soon as is practicable, clean up the hazardous waste and any contaminated materials or soils.

(C) If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment or if the generator has knowledge that a spill has reached surface water or groundwater, then the generator shall immediately notify the department's pollution emergency alerting system - telephone number 800-292-4706. For releases that could threaten human health outside the individual site of generation and spills that have reached surface waters, the person shall also immediately notify the national response center at its 24-hour, toll-free number 800-424-8802. The notifications shall include all of the following information:

(1) The name and telephone number of the person who is reporting the incident.

(2) The name, address, telephone number, and site identification number of the person accumulating the waste.

(3) The date, time, and type of incident.

- (4) The name and quantity of the material or materials involved and released.
- (5) The extent of injuries, if any.
- (6) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.
- (7) An assessment of actual or potential hazards to human health or the environment.
- (8) The immediate response action taken.
- (x) Ensure that the area where the waste is accumulated is protected from weather, fire, physical damage, and vandals.
- (xi) Ensure that waste accumulation is conducted so hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.
- (xii) Except as otherwise noted in this paragraph, ensure that waste is not accumulated on-site for a period of more than 180 days before the waste is recycled, treated, or disposed of pursuant to subrule (2) of this rule. If the person exceeds the 180-day accumulation period, then the person and all of the accumulated waste are subject to the requirements for owners or operators of hazardous waste management facilities. Municipal household waste collection programs may accumulate conditionally exempt small quantity generator waste on-site for not more than 1 year.
- (xiii) Ensure that the volume of waste being accumulated on-site is not more than 6,000 kilograms before the waste is recycled, treated, or disposed of pursuant to subrule (2) of this rule. If the person exceeds the 6,000-kilograms accumulation limit, then the person and all of the accumulated waste are subject to the requirements for owners or operators of hazardous waste management facilities.
- (xiv) Within 15 days after accumulating 1,000 kilograms or more of waste, provide the department with a 1-time written notification unless the person already has an site identification number. The notification shall include all of the following information:
 - (A) The names, addresses, and telephone numbers of the owner and operator of the accumulation site.
 - (B) The name, address, and telephone number of the accumulation site.
 - (C) The type of waste accumulated at the site.
 - (D) The quantity of each waste accumulated at the site.
- (b) If the quantity of acute or severely toxic hazardous wastes accumulated on-site is more than the limits specified in subrule (1)(b) or (c) of this rule, the following requirements:
 - (i) Place the waste in containers and comply with 40 C.F.R. part 265, subpart I, except for §265.176, and the containment requirements of 40 C.F.R. §264.175.
 - (ii) Place the waste in tanks and comply with 40 C.F.R. §265.201 and the containment requirements of 40 C.F.R. §§265.191, 265.192, 265.193, and 265.196.
 - (iii) The requirements specified in R 299.9205(4)(a)(iii) to (xi).
 - (iv) Except as otherwise provided in this paragraph, ensure that waste is not accumulated on-site for a period of more than 90 days before being recycled, treated, or disposed of pursuant to subrule (2) of this rule. If the person exceeds the 90-day accumulation period, then the person and all of the accumulated waste are subject to the requirements for owners or operators of hazardous waste management facilities. Municipal household waste collection programs may accumulate conditionally exempt small quantity generator acute or severely toxic hazardous waste on-site for not more than 1 year.
 - (v) Ensure that the volume of waste being accumulated on-site is not more than the limits specified in subrule (1)(b) or (c) of this rule before the waste is recycled, treated, or disposed of pursuant to subrule (2) of this rule. If the person, except for a municipal household waste collection program, exceeds the accumulation limits specified in subrule (1)(b) or (c) of this rule, then the person and all of the accumulated waste are subject to the requirements for owners or operators of hazardous waste management facilities.

(vi) Notify the department, in writing, within 15 days after accumulating quantities of waste that exceed the limits specified in subrule (1)(b) or (c) of this rule. The notification shall include all of the following information:

- (A) The names, addresses, and telephone numbers of the owner and operator of the accumulation site.
 - (B) The name, address, and telephone number of the accumulation site.
 - (C) The type of waste accumulated at the site.
 - (D) The quantity of each waste accumulated at the site.
- (5) When making the quantity determinations of this rule and part 3 of these rules, the generator shall include all hazardous waste that he or she generates, except the hazardous waste that meets any of the following criteria:
- (a) Is exempt from regulation pursuant to R 299.9204(3) to (11), R 299.9206(3), or R 299.9207(1).
 - (b) Is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment units as defined in part 1 of these rules.
 - (c) Is removed from on-site storage.
 - (d) Is hazardous waste produced by on-site treatment, including reclamation, of his or her hazardous waste if the hazardous waste that is treated was counted once.
 - (e) Is recycled, without prior storage or accumulation, only in an on-site process that is subject to regulation pursuant to R 299.9206(1)(c).
 - (f) Are spent materials that are generated, reclaimed, and subsequently reused on-site, if the spent materials have been counted once.
 - (g) Is used oil and managed pursuant to R 299.9206(4) and R 299.9809 to R 299.9816.
 - (h) Are spent lead-acid batteries managed pursuant to R 299.9804.
 - (i) Is universal waste managed pursuant to R 299.9228.
 - (j) Is a hazardous waste that is an unused commercial chemical product listed in R 299.9214 or exhibiting 1 or more characteristics in R 299.9212 and is generated solely as a result of a laboratory clean-out conducted at an eligible academic entity pursuant to R 299.9313.**
- (6) Hazardous waste subject to the reduced requirements of this rule may be mixed with nonhazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this rule, unless the mixture meets any of the characteristics of hazardous wastes identified in R 299.9212.
- (7) If a person mixes a waste with a hazardous waste that exceeds a quantity exclusion level of this rule, then the mixture is subject to full regulation.
- (8) If a conditionally exempt small quantity generator's wastes are mixed with used oil, then the mixture is subject to the applicable requirements of R 299.9809 to R 299.9816. Any material produced from the mixture of by processing, blending, or other treatment is also subject to the applicable requirements of R 299.9809 to R 299.9816. Mixtures of a conditionally exempt small quantity generator's halogenated hazardous waste listed under R 299.9213 or R 299.9214 and used oil are subject to regulation as a hazardous waste.

R 299.9206 Requirements for recyclable materials.

Rule 206. (1) Except as provided in subrules (2) to (5) of this rule, recyclable materials are subject to all of the following requirements:

- (a) Generators and transporters of recyclable materials are subject to the applicable requirements of parts 3 and 4 of these rules.
- (b) Owners or operators of facilities that store recyclable materials before they are recycled are regulated pursuant to all applicable provisions of parts 5, 6, 7, and 8 of these rules. The recycling process itself is exempt from regulation, except as provided in subdivision (d) of this subrule.

(c) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the identification number requirements of 40 C.F.R. §264.11 and the manifest requirements of R 299.9608. The recycling process itself is exempt from regulation, except as provided in subdivision (d) of this subrule.

(d) A hazardous waste management unit in which recyclable materials are recycled is subject to the requirements of 40 C.F.R. part 265, subparts AA and BB if the unit is located at a facility that is described in R 299.9601(3)(a) or (b), or the requirements of R 299.9630 and R 299.9631 if the unit is located at a facility subject to the ~~permitting~~ or licensing requirements specified in part 111 of the act and part 5 of these rules.

(2) The following recyclable materials are not subject to the requirements of this rule, but are regulated under the applicable provisions of parts 5 and 8 of these rules:

- (a) Recyclable materials used in a manner that constitutes disposal.
- (b) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated as incinerators pursuant to the provisions of part 6 of these rules.
- (c) Recyclable materials from which precious metals are reclaimed.
- (d) Spent lead-acid batteries that are being reclaimed.

(3) The following recyclable materials are not subject to regulation pursuant to part 111 of the act or these rules, except for the environmental and human health standards of R 299.9602 and the provisions of R 299.9809 to R 299.9816, as applicable:

(a) Industrial ethyl alcohol that is reclaimed, except that, unless otherwise provided in an international agreement as specified in the provisions of 40 C.F.R. §262.58, the following requirements apply:

(i) A person who initiates a shipment for reclamation in a foreign country, and any intermediary who arranges for the shipment, shall comply with the requirements applicable to a primary exporter in the provisions of 40 C.F.R. §§262.53, 262.56(a)(1) to (4), (6), and (b), and 262.57, export such materials only with the consent of the receiving country and in conformance with the EPA acknowledgment of consent as defined in subpart E of 40 C.F.R. part 262, and provide a copy of the EPA acknowledgment of consent to the shipment to the transporter that transports the shipment for export.

(ii) A transporter that transports a shipment for export shall not accept a shipment if he or she knows that the shipment does not conform to the EPA acknowledgment of consent, shall ensure that a copy of the EPA acknowledgment of consent accompanies the shipment, and shall ensure that it is delivered to the facility that is designated by the person who initiates the shipment.

(b) Scrap metal that is not excluded under R 299.9204(1)(p).

(c) Fuels produced from the refining of oil-bearing hazardous wastes together with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices. This exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, if the recovered oil is already excluded under R 299.9204(1)(l).

(d) Hazardous waste fuel which is produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices or which is produced from oil that is reclaimed from the hazardous wastes, where the hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil if the resulting fuel is in compliance with the used oil specification ~~set forth~~ in R 299.9809(1)(f) and if other hazardous wastes are not used to produce the hazardous waste fuel.

(e) Hazardous waste fuel that is produced from oil-bearing hazardous waste which results from petroleum refining production and transportation practices if the hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed and if the fuel is in compliance with the used oil fuel specification ~~set forth~~ in R 299.9809(1)(f).

(f) Oil which is reclaimed from oil-bearing hazardous wastes that result from petroleum refining,

production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, if the reclaimed oil is in compliance with the used oil fuel specification set forth in R 299.9809(1)(f).

(g) Textiles, including shop towels, rags, gloves, uniforms, linens, mops, and wipers, that are being recycled in a manner other than being burned for energy recovery or used in a manner constituting disposal if both of the following conditions are met:

(i) After the textile's original use, hazardous waste is not mixed with the textile.

(ii) The textiles and the containers used to transport the textiles do not contain any free liquids.

(4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to regulation pursuant to part 111 of the act or these rules, except for the environmental and human health standards outlined in the provisions of R 299.9602 and the provisions of R 299.9809 to R 299.9816. Used oil that is recycled includes any used oil that is reused, after its original use, for any purpose. Used oil includes, but is not limited to, oil that is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(5) An owner or operator of a facility that stores ~~electric~~ lamps which meet the definition of a hazardous waste before recycling the lamps at the facility shall comply with all of the following requirements:

(a) Submit a written notification of hazardous waste ~~electric~~ lamp storage activity to the director. The notification shall include all of the following information:

(i) The name, mailing address, and telephone number of the owner.

(ii) The name, mailing address, and telephone number of the operator.

(iii) The name, mailing address, location, and telephone number of the recycle facility.

(iv) A description of the unit or units in which the ~~electric~~ lamps are managed on-site before recycling and a map that shows the location of the unit or units.

(b) Obtain an identification number for the facility from the director.

(c) The environmental and human health standards pursuant to the provisions of R 299.9602.

(d) The location standards pursuant to the provisions of R 299.9603.

(e) The facility design and operating standards pursuant to the provisions of R 299.9604.

(f) The handling requirements of R 299.9228(4)(c).

(g) Ensure that facility personnel are trained with respect to proper hazardous waste handling and preparedness and prevention procedures and are familiar with the facility emergency procedures.

(h) If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the owner or operator has knowledge that a spill has reached surface water or groundwater, then the owner or operator shall immediately notify the department's pollution emergency alerting system telephone number 800-292-4706, or the department's district office for which the facility is located. The notification shall include all of the following information:

(i) The name and telephone number of the person who is reporting the incident.

(ii) The name, address, telephone number, and identification number of the facility.

(iii) The date, time, and type of incident.

(iv) The name and quantity of the material or materials involved and released.

(v) The extent of injuries, if any.

(vi) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.

(vii) An assessment of actual or potential hazards to human health or the environment.

(viii) The immediate response action taken.

(i) The area where the ~~electric~~ lamps are accumulated shall be protected, as appropriate for the type of waste being stored, from weather, fire, physical damage, and vandals.

(j) ~~Electric lamp~~ Accumulation shall be conducted so that fugitive emissions are not in violation of the provisions of part 55 of the act.

(k) A written operating record shall be maintained on-site by the owner or operator and shall contain all of the following information:

- (i) The quantity of ~~electric~~ lamps received on-site during the calendar year.
- (ii) The quantity of ~~electric~~ lamps recycled at the facility during the calendar year.
- (iii) The documentation necessary to demonstrate that the ~~electric~~ lamps are not being stored on-site for more than 1 year.

(l) The closure standards of 40 C.F.R. §§264.111 and 264.114.

(m) The provisions of R 299.9614 if the ~~electric~~ lamps are being stored in containers and the provisions of R 299.9615 if the ~~electric~~ lamps are being stored in tanks.

(n) The ~~electric~~ lamps shall not be stored on-site for more than 1 year from the date that the owner or operator receives the ~~electric~~ lamps.

(o) Any hazardous waste that is generated from the ~~electric~~ lamp recycle operation is subject to the provisions of parts 2 to 7 of these rules.

(6) Hazardous waste that is exported to or imported from designated member countries of the organization for economic cooperation and development, as defined in 40 C.F.R. §262.58(a)(1), for the purpose of recovery is subject to the requirements of R 299.9312 if the hazardous waste is either a federal hazardous waste subject to the manifesting requirements of part 3 of these rules or is a universal waste subject to the provisions R 299.9228.

(7) The provisions of 40 C.F.R. §§264.11, 264.111, and 264.114, and part 265, subparts AA and BB, are adopted by reference in R 299.11003.

R 299.9207 Residues of hazardous waste in empty containers.

Rule 207. (1) Any hazardous waste that remains in either an empty container or an inner liner which is removed from an empty container, as explained in subrules (3), (4), and (5) of this rule, is not subject to regulation pursuant to the provisions of parts 3 to 10 of these rules.

(2) Any hazardous waste in either a container that is not empty or an inner liner which is removed from a container that is not empty, as explained in subrule (3), (4), or (5) of this rule, is subject to regulation pursuant to these rules.

(3) A container or an inner liner which is removed from a container that has held any hazardous waste, except for a waste which is a compressed gas, which is identified as an acute hazardous waste listed in table 203a, ~~204a~~, 204b, or 205a of this part, or which is a severely toxic hazardous waste, is empty if both of the following conditions are met:

(a) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, such as pouring, pumping, and aspirating.

(b) Not more than 2.5 centimeters (1 inch) of residue remain on the bottom of the container or inner liner or either of the following conditions is met:

(i) Not more than 3% by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size.

(ii) Not more than 0.3% by weight of the total capacity of the container remains in the container or inner liner if the container is more than 119 gallons in size.

(4) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

(5) A container or an inner liner that is removed from a container which has held an acute hazardous waste that is listed in table 203a, ~~204a~~, 204b, or 205a of this part or that is a severely toxic hazardous waste is empty if any of the following criteria are met:

- (a) The container or inner liner has been triple rinsed using a solvent that is capable of removing the commercial chemical product or manufacturing chemical intermediate.
- (b) The container or inner liner has been cleaned by another method that has been shown, in scientific literature or by tests conducted by the generator, to achieve equivalent removal.
- (c) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container has been removed.
- (d) In the case of a container or inner liner that has held a pharmaceutical formulation that is an acute hazardous waste listed solely for a hazardous waste characteristic and the formulation in the container or inner liner does not exhibit the characteristic for which the waste was listed, the container or inner liner is empty if the requirements of subrule (3) of this rule are met.

R 299.9212 Characteristics of hazardous waste.

Rule 212. (1) A waste exhibits the characteristic of ignitability and is identified by the hazardous waste number D001 if a representative sample of the waste has any of the following properties:

(a) It is a liquid, other than an aqueous solution produced by a kraft pulp or paper mill that contains less than 24% alcohol by volume or an aqueous solution that contains less than 24% alcohol, by volume, as defined by section 211.117(a)(5) to (7) of the Internal Revenue Code, 27 U.S.C. §211.117(a)(5) to (7), including distilled spirits, wine, and malt beverages, and has a flash point less than 60 degrees Centigrade (140 degrees Fahrenheit), as determined by any of the following test methods:

- (i) A Pensky-Martens closed cup tester using the test method specified in ASTM standard D-93-~~1179~~ ~~or D-93-80, both of which are~~ adopted by reference in R 299.11001.
- (ii) A setaflash closed cup tester using the test method specified in ASTM standard D-3278-~~9678~~, which is adopted by reference in R 299.11001.
- (iii) A standard test method for flash point by continuously closed cup tester using the test method specified in ASTM standard D6450-~~0599~~, which is adopted by reference in R 299.11001.

(iv) An equivalent test method approved by the director, or his or her designee, pursuant to procedures ~~set forth in~~ R 299.9215.

(b) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(c) It is an ignitable compressed gas as defined in 40 C.F.R. §261.21(a)(3) and meets the criteria specified therein.

(d) It is an oxidizer as defined in 49 C.F.R. §173.127, which is adopted by reference in R 299.11004.

(2) A waste exhibits the characteristic of corrosivity and is identified by the hazardous waste number D002 if a representative sample of the waste has either of the following properties:

(a) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using method 9040C in the publication entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," which is adopted by reference in R 299.11005.

(b) It is a liquid and corrodes steel (SAE 1020) at a rate of more than 6.35 mm (0.250 inch) per year at a test temperature of 55 degrees Centigrade (130 degrees Fahrenheit) as determined by method 1110A in the publication entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," which is adopted by reference in R 299.11005.

(3) A waste exhibits the characteristic of reactivity and is identified by the hazardous waste number D003 if a representative sample of the waste has any of the following properties:

- (a) It is normally unstable and readily undergoes violent change without detonating.
- (b) It reacts violently with water.

- (c) It forms potentially explosive mixtures with water.
 - (d) When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.
 - (e) It is a cyanide or sulfide-bearing waste that, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.
 - (f) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
 - (g) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
 - (h) It is a forbidden explosive as defined in 49 C.F.R. §173.54, or it meets the definition of a ~~class 1.1, 1.2, or 1.3 explosive as defined in 49 C.F.R. §§173.50 and 173.53, which is adopted by reference in R 299.11004.~~ **class 1.1, 1.2, or 1.3 explosive as defined in 49 C.F.R. §§173.50 and 173.53, which is adopted by reference in R 299.11004.**
- (4) A waste, except manufactured gas plant waste, exhibits the toxicity characteristic if, using the toxicity characteristic leaching procedure, test Method 1311 in the publication entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," which is adopted by reference in R 299.11005, the extract from a representative sample of the waste contains any of the contaminants listed by the administrator or the director and identified in table 201a of these rules at a concentration equal to or greater than the respective values given in the tables. If the waste contains less than 0.5% filterable solids, then the waste itself, after filtering using the methodology outlined in method 1311, is considered to be the extract for the purposes of this rule.
- (5) A waste exhibits the characteristic of severe toxicity if the waste contains 1 part per million or more of a severely toxic substance listed in table 202.
- (6) A hazardous waste that is identified by a characteristic in this rule shall be assigned every hazardous waste number that is applicable. The hazardous waste number or numbers shall be used in complying with the notification, recordkeeping, and reporting requirements of these rules. The hazardous waste numbers are as follows:
- (a) For wastes determined to be hazardous pursuant to subrules (4) and (5) of this rule, the hazardous waste number listed in table 201a or table 202 of these rules.
 - (b) For a waste that exhibits the characteristic of ignitability, the hazardous waste number D001.
 - (c) For a waste that exhibits the characteristic of corrosivity, the hazardous waste number D002.
 - (d) For a waste that exhibits the characteristic of reactivity, the hazardous waste number D003.
- (7) For the purposes of this rule, the director, or his or her designee, shall consider a sample that is obtained using any of the applicable sampling methods specified in 40 C.F.R. part 261, appendix I, which is adopted by reference in R 299.11003, to be a representative sample.
- (8) The following test methods shall be used:
- (a) For aflatoxin, the test methods ~~set forth~~ in subsection 26, natural poisons, of the publication entitled "Official Methods of Analysis of the Association of Official Analytical Chemists," 13th edition, 1980, which is adopted by reference in R 299.11006.
 - (b) For chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans in chemical wastes, including still bottoms, filter aids, sludges, spent carbon, and reactor residues, and in soil, EPA method 8280B or **8290A** in the publication entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," which is adopted by reference in R 299.11005.
 - (c) Alternate procedures as approved by the director or his or her designee.

(9) The provisions of 40 C.F.R. §261.21(a)(3) are adopted by reference in R 299.11003.

R 299.9216 Method of analysis.

Rule 216. (1) The method of analysis specified in the provisions of appendix III of 40 C.F.R. part 261 shall be used to identify the hazardous constituents listed in appendices VII and VIII of 40 C.F.R. part 261. Alternate methods of analysis may be used if approved by the director.

(2) The provisions of 40 C.F.R. part 261, appendices III, VII, and VIII are adopted by reference in R 299.11003.

R 299.9220 Table 203a; hazardous waste from nonspecific sources.

Rule 220. Table 203a reads as follows:

Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures and blends used in degreasing containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane and 1,1,2- trichloroethane; all spent solvent mixtures and blends containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F003	The following spent nonhalogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures and blends containing, before use, only the above spent nonhalogenated solvents; and all spent solvent mixtures or blends, containing before use, one or more of the above nonhalogenated solvents, and a total of 10% or more, by volume, of one or more of those solvents listed in F001, F002, F004, and F005 and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I)

Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F004	The following spent nonhalogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures and blends containing, before use, a total of 10% or more, by volume, of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F005	The following spent nonhalogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures and blends containing, before use, a total of 10% or more, by volume, of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002 and F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating used on a segregated basis on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning or stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R,T)
F008	Plating sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R,T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R,T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process	(R,T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat-treating operations	(R,T)
F012	Quenchine wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if both of the following requirements are met: 1) the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either disposed of in a solid waste landfill unit that is permitted or licensed under part 115, solid waste management, of the act; or disposed in a hazardous waste landfill meeting the requirements of the act and	(T)

Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
	these rules and 2) the generator maintains records to prove that the exempted sludges meet the conditions of the listing, including: volume of waste generated and disposed off site; date the waste was generated, date the waste was sent off site, name and address of receiving facility, and documentation confirming receipt. For the purposes of this listing, motor vehicle manufacturing means the engagement in the manufacture of complete automobiles and light trucks/utility vehicles or chassis only.	
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process, of tri- or tetrachlorophenol or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol	(H)
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of pentachlorophenol or of intermediates used to produce its derivatives	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzenes under alkaline conditions	(H)
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol	(H)
F024	Process wastes, including, but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from 1 to 5, with varying amounts and positions of chlorine substitutions. This listing does not include wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in R 299.9213(1)(a) or R 299.9214(1)(a)	(T)
F025	Condensed light ends, spent filters and filter acids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from 1 to 5, with varying amounts and positions of chlorine substitution	(T)

Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzene under alkaline conditions	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulation containing compounds derived from these chlorophenols. This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027	(T)
F032	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations, except potentially cross-contaminated wastes that have had the F032 hazardous waste number deleted pursuant to 40 C.F.R. §261.35 or potentially cross-contaminated wastes that are otherwise currently regulated as F034 or F035, and where the generator does not resume or initiate the use of chlorophenolic formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
F034	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
F035	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
F037	Petroleum refinery primary oil/water/solids (oil and/or water and/or solids) separation sludge-any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries.	(T)

Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
	Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in R 299.9213(4), including sludges generated in 1 or more additional units after wastewaters have been treated in aggressive biological treatment units, and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under R 299.9204(1)(l) if those residuals are being disposed.	
F038	Petroleum refinery secondary (emulsified) oil/water/solids (oil and/or water and/or solids) separation sludge-any sludge or float generated from the physical or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in induced air flotation (IAF) units and tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow; sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters; sludges and floats generated in aggressive biological treatment units as defined in R 299.9213(4), including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units; and F037, K048, and K051 wastes are not included in this listing.	(T)
F039	Leachate resulting from the treatment, storage, or disposal of wastes classified by more than 1 hazardous waste number pursuant to R 299.9213 and R 299.9214 or from a mixture of wastes classified pursuant to R 299.9213 and R 299.9214. Leachate resulting from the management of 1 or more of the following hazardous wastes, and no other hazardous wastes, retains its original hazardous waste number or numbers: F020, F021, F022, F023, F026, F027, or F028.	(T)

R 299.9221 ~~Table 203b-Rescinded.~~

~~Rule 221. Table 203b reads as follows:~~

Table 203b	
Michigan Hazardous Waste Number	Hazardous Waste From Nonspecific Sources
	None

R 299.9223 **Table 204b Rescinded.**

Rule 223. Table 204b reads as follows:

Table 204b		
Michigan Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
001K	Residues, including emission control sludges, from the production process and packaging of 4,4'-Methylenebis (2-chloroaniline)	(T)
002K	Wash acids generated after the effective date of these rules from the production of 3,3'-Dichlorobenzidine and still bottoms from the recovery of these acids, excluding wash acids that are recycled or any materials that are reclaimed from the wash acids and used beneficially	(T)

R 299.9224 Table 205a; discarded commercial chemical products; off-specification species; container residues; and spill residues thereof as acutely hazardous wastes.

Rule 224. Table 205a reads as follows:

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P023	107-20-0	Acetaldehyde, chloro-	
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-	
P057	640-19-7	Acetamide, 2-fluoro-	
P058	62-74-8	Acetic acid, fluoro-, sodium salt	
P002	591-08-2	1-Acetyl-2-thiourea	
P003	107-02-8	Acrolein	
P070	116-06-3	Aldicarb	
P203	1646-88-4	Aldicarb sulfone	
P004	309-00-2	Aldrin	
P005	107-18-6	Allyl alcohol	
P006	20859-73-8	Aluminum phosphide	(R,T,)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol	
P008	504-24-5	4-Aminopyridine	
P009	131-74-8	Ammonium picrate	(R)
P119	7803-55-6	Ammonium vanadate	
P099	506-61-6	Argentate (1-), bis(cyano-C)-, potassium	
P010	7778-39-4	Arsenic acid	
P012	1327-53-3	Arsenic (III) oxide	
P011	1303-28-2	Arsenic (V) oxide or arsenic pentoxide	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P011	1303-28-2	Arsenic pentoxide	
P012	1327-53-3	Arsenic trioxide	
P038	692-42-2	Arsine, diethyl-	
P036	696-28-6	Arsonous dichloride, phenyl-	
P054	151-56-4	Aziridine	
P067	75-55-8	Aziridine, 2-methyl-	
P013	542-62-1	Barium cyanide	
P024	106-47-8	Benzenamine, 4-chloro-	
P077	100-01-6	Benzenamine, 4-nitro-	
P028	100-44-7	Benzene, (chloromethyl)-	
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-	(R)
P046	122-09-2	Benzeneethanamine, alpha, alpha-dimethyl-	
P014	108-98-5	Benzenethiol	
P127	1563-66-2	7-benzofuranol, 2,3-dihydro-2,2-dimethyl-, methoxycarbamate	
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis) - 1,2,3,3a,8,8a-hexahydro-1,3a,8- trimethylpyrrolo [2,3-b] indol-5-yl methylcarbamate ester (1:1)	
P001	81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations greater than 0.3%	
P028	100-44-7	Benzyl chloride	
P015	7440-41-7	Beryllium powder	
P017	598-31-2	Bromoacetone	
P018	357-57-3	Brucine	
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino) carbonyl] oxime	
P021	592-01-8	Calcium cyanide or calcium cyanide Ca(CN)₂	
P021	592-01-8	Calcium cyanide Ca(CN)₂	
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester	
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester	
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H-pyrazol-5-yl ester	
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester	
P127	1563-66-2	Carbofuran	
P022	75-15-0	Carbon disulfide	
P095	75-44-5	Carbonyl chloride	
P189	55285-14-8	Carbosulfan	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P023	107-20-0	Chloroacetaldehyde	
P024	106-47-8	p-Chloroaniline	
P026	5344-82-1	1-(o-Chlorophenyl)thiourea	
P027	542-76-7	3-Chloropropionitrile	
P029	544-92-3	Copper cyanide or copper cyanide Cu(CN)	
P029	544-92-3	Copper cyanide Cu(CN)	
P202	64-00-6	m-Cumenyl methylcarbamate	
P030	-----	Cyanides (soluble cyanide salts), not elsewhere specified	
P031	460-19-5	Cyanogen	
P033	506-77-4	Cyanogen chloride or cyanogen chloride (CN)C ₁	
P033	506-77-4	Cyanogen chloride (CN)C₁	
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol	
P016	542-88-1	Dichloromethyl ether	
P036	696-28-6	Dichlorophenylarsine	
P037	60-57-1	Dieldrin	
P038	692-42-2	Diethylarsine	
P041	311-45-5	Diethyl-p-nitrophenyl phosphate	
P040	297-97-2	0,0-Diethyl 0-pyrazinyl phosphorothioate	
P043	55-91-4	Diisopropyl fluorophosphate	
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-	
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-	
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1alpha,2beta,2alpha,3beta,6beta,6alpha,7beta,7alpha)-	
P051	72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1alpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7alpha)-, & metabolites	
P044	60-51-5	Dimethoate	
P046	122-09-8	alpha,alpha-Dimethylphenethylamine	
P191	644-64-4	Dimetilan	
P047	534-52-1	4,6-Dinitro-o-cresol and salts	
P048	51-28-5	2,4-Dinitrophenol	
P020	88-85-7	Dinoseb	
P085	152-18-9	Diphosphoramidate, octamethyl-	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P111	107-49-3	Diphosphoric acid, tetraethyl ester	
P039	298-04-4	Disulfoton	
P049	541-53-7	2,4-Dithiobiuret	
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2-4-dimethyl-, O-[(methylamino)- carbonyl]oxime	
P050	115-29-7	Endosulfan	
P088	145-73-7	Endothall	
P051	72-20-8	Endrin	
P051	72-20-8	Endrin, and metabolites	
P042	51-43-4	Epinephrine	
P031	460-19-5	Ethanedinitrile	
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-[[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester	
P066	16752-77-5	Ethanimidothioic acid, N-[[[(methylamine)carbonyl] oxy]-, methyl ester	
P101	107-12-0	Ethyl cyanide	
P054	151-58-4	Ethyleneimine	
P097	52-85-7	Famphur	
P056	7782-41-4	Fluorine	
P057	640-19-7	Fluoroacetamide	
P058	62-74-8	Fluoroacetic acid, sodium salt	
P198	23422-53-9	Formetanate hydrochloride	
P197	17702-57-7	Formparanate	
P065	628-86-4	Fulminic acid, mercury (II) salt	(R,T)
P059	76-44-8	Heptachlor	
P062	757-58-4	Hexaethyl tetraphosphate	
P116	79-19-6	Hydrazinecarbothioamide	
P068	60-34-4	Hydrazine, methyl-	
P063	74-90-8	Hydrocyanic acid or hydrogen cyanide	
P063	74-90-8	Hydrogen cyanide	
P096	7803-51-2	Hydrogen phosphide	
P060	465-73-6	Isodrin	
P192	119-38-0	Isolan	
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate	
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-	
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-, or manganese, dimethyldithiocarbamate	
P196	15339-36-3	Manganese, dimethyldithiocarbamate	
P092	62-38-4	Mercury, (acetato-O)phenyl-	
P065	628-86-4	Mercury fulminate	(R,T)

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P082	62-75-9	Methanamine, N-methyl-N-nitroso-	
P064	624-83-9	Methane, isocyanato-	
P016	542-88-1	Methane, oxybis(chloro-	
P112	509-14-8	Methane, tetranitro-	(R)
P118	75-70-7	Methanethiol, trichloro-	
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3- [[[(methylamino)carbonyl]oxy]phenyl]-, monohydrochloride	
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4- [[[(methylamino)carbonyl]oxy]phenyl]-	
P050	115-20-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10- hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide	
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-	
P199	2032-65-7	Methiocarb	
P066	16752-77-5	Methomyl	
P068	60-34-4	Methyl hydrazine	
P064	624-83-9	Methyl isocyanate	
P069	75-86-5	2-Methylactonitrile	
P071	298-00-0	Methyl parathion	
P190	1129-41-5	Metolcarb	
P128	315-18-4	Mexacarbate	
P072	86-88-4	alpha-Naphthylthiourea	
P073	13463-39-3	Nickel carbonyl or nickel carbonyl Ni(CO)₄, (T-4)-	
P073	13463-39-3	Nickel carbonyl Ni(CO)₄, (T-4)-	
P074	557-19-7	Nickel cyanide or nickel (II) cyanide	
P074	557-19-7	Nickel (II) cyanide	
P075	54-11-5	Nicotine and salts	
P076	10102-43-9	Nitric oxide	
P077	100-01-6	p-Nitroaniline	
P078	10102-44-0	Nitrogen dioxide or nitrogren (IV) oxide	
P076	10102-43-9	Nitrogen (II) oxide	
P078	10102-44-0	Nitrogen (IV) oxide	
P081	55-63-0	Nitroglycerine	(R)
P082	62-75-9	N-Nitrosodimethylamine	
P084	4549-40-0	N-Nitrosomethylvinylamine	
P085	152-16-9	Octamethylpyrophosphor-amide	
P087	20816-12-0	Osmium oxide or osmium tetroxide	
P087	20816-12-0	Osmium tetroxide	
P088	145-73-3	7-Oxabicyclo [2.2.1] heptane-2,3-dicarboxylic acid	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P194	23135-22-0	Oxamyl	
P089	56-38-2	Parathion	
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-	
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	
P048	51-28-5	Phenol, 2,4-dinitro-	
P047	534-52-1	Phenol, 2-methyl-4,6-dinitro- and salts	
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate	
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	
P020	88-85-7	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt	(R)
P092	62-38-4	Phenylmercuric acetate	
P093	103-85-5	N-Phenylthiourea	
P094	298-02-2	Phorate	
P095	75-44-5	Phosgene	
P096	783-51-2	Phosphine	
P041	311-45-5	Phosphoric acid, diethyl p-nitrophenyl ester	
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio) methyl] ester	
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-O[2-(methylamino)-2-oxoethyl] ester	
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl)ester	
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	
P097	52-85-7	Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino) sulfonyl)phenyl] ester	
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	
P204	57-47-6	Physostigmine	
P188	57-64-7	Physostigmine salicylate	
P110	78-00-2	Plumbane, tetraethyl-	
P098	151-50-8	Potassium cyanide or potassium cyanide K(CN)	
P098	151-50-8	Potassium cyanide K(CN)	
P099	506-61-6	Potassium silver cyanide	
P201	2631-37-0	Promecarb	
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-,O-[(methylamino)carbonyl] oxime	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl] oxime	
P101	107-12-0	Propanenitrile	
P027	542-76-7	Propanenitrile, 3-chloro-	
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-	
P081	55-63-0	1,2,3-Propanetriol, trinitrate-	(R)
P017	596-31-2	2-Propanone, 1-bromo-	
P102	107-19-7	Propargyl alcohol	
P003	107-02-8	2-Propenal	
P005	107-18-6	2-Propen-1-ol	
P067	75-55-8	1,2-Propylenimine	
P102	107-19-7	2-Propyn-1-ol	
P008	504-24-5	4-Pyridinamine	
P075	54-11-5	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts	
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-	
P114	12039-52-0	Selenious acid, dithallium(1+) salt	
P103	630-10-4	Selenourea	
P104	506-64-9	Silver cyanide or silver cyanide Ag(CN)	
P104	506-64-9	Silver cyanide Ag(CN)	
P105	26628-22-8	Sodium azide	
P106	143-33-9	Sodium cyanide or sodium cyanide Na(CN)	
P106	143-33-9	Sodium cyanide Na(CN)	
P108	57-24-9	Strychnidin-10-one, and salts, or strychnine and salts	
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-	
P108	57-24-9	Strychnine and salts	
P115	7446-18-6	Sulfuric acid, thallium (I) salt	
P109	3689-24-5	Tetraethyldithiopyrophosphate	
P110	78-00-2	Tetraethyl lead	
P111	107-49-3	Tetraethylpyrophosphate	
P112	509-14-8	Tetranitromethane	(R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester	
P113	1314-32-5	Thallic oxide or thallium (III) oxide	
P113	1314-32-5	Thallium (III) oxide	
P114	12039-52-0	Thallium (I) selenide	
P115	7446-18-6	Thallium (I) sulfate	
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester	
P045	39196-18-4	Thiofanox	
P049	541-53-7	Thioimidodicarbonic diamide	
P014	108-98-5	Thiophenol	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P116	79-19-6	Thiosemicarbazide	
P026	5344-82-1	Thiourea, (2-chlorophenyl)-	
P072	86-88-4	Thiourea, 1-naphthalenyl-	
P093	103-85-5	Thiourea, phenyl-	
P185	26419-73-8	Tirpate	
P123	8001-35-2	Toxaphene	
P118	75-70-7	Trichloromethanethiol	
P119	7803-55-6	Vanadic acid, ammonium salt	
P120	1314-62-1	Vanadium (V) oxide or vanadium pentoxide	
P120	1314-62-1	Vanadium pentoxide	
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-	
P001	81-81-2	Warfarin, when present at concentrations greater than 0.3%	
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-	
P121	557-21-1	Zinc cyanide or zinc cyanide Zn(CN)₂	
P121	557-21-1	Zinc cyanide Zn(CN)₂	
P122	1314-84-7	Zinc phosphide, when present at concentrations greater than 10%	(R,T)
P205	137-30-4	Ziram	

R 299.9225 Table 205b; discarded commercial chemical products; off-specification species; container residues; and spill residues thereof as toxic hazardous wastes.

Rule 225. Table 205b reads as follows:

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U394	30558-43-1	A2213	
U001	75-07-0	Acetaldehyde	(I)
U034	75-87-6	Acetaldehyde, trichloro-	
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-	
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-	
U240	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts and esters	
U112	141-78-6	Acetic acid, ethyl ester	(I)
U144	301-04-2	Acetic acid, lead(2+) salt	
U214	563-68-8	Acetic acid, thallium(1+) salt	
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-	
U002	67-64-1	Acetone	(I)
U003	75-05-8	Acetonitrile	(I,T)

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U004	98-86-2	Acetophenone	
U005	53-96-3	2-Acetylaminofluorene	
U006	75-36-5	Acetyl chloride	(C,R,T)
U007	79-06-1	Acrylamide	
U008	79-10-7	Acrylic acid	(I)
U009	107-13-1	Acrylonitrile	
U011	61-82-5	Amitrole	
U012	62-53-3	Aniline	(I,T)
U136	75-60-5	Arsinic acid, dimethyl-	
U014	492-80-8	Auramine	
U015	115-02-6	Azaserine	
U010	50-07-7	Azirino(2',3':3,4)pyrrolo (1,2-a)indole-4,7-dione,6-amino-8-(((aminocarbonyl)oxy) methyl)-1,1a,2,8,8a,8b hexahydro-8a-methoxy-5-methyl-	
U280	101-27-9	Barban	
U278	22781-23-3	Bendiocarb	
U364	22961-82-6	Bendiocarb phenol	
U271	17804-35-2	Benomyl	
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	
U016	225-51-4	Benz[c]acridine	
U017	98-87-3	Benzal chloride	
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	
U018	56-55-3	Benz[a]anthracene	
U094	57-97-6	1,2-Benzanthracene, 7,12-dimethyl-	
U012	62-53-3	Benzenamine	(I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-	
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-	
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-	
U328	95-53-4	Benzenamine, 2-methyl-	
U353	106-49-0	Benzenamine, 4-methyl-	
U158	101-14-4	Benzenamine, 4,4'-methylenebis(2-chloro-	
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride	
U181	99-55-8	Benzenamine, 2-methyl-5-nitro	
U019	71-43-2	Benzene	(I,T)
U038	510-15-8	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester	
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-	
U035	305-03-03	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	
U037	106-90-7	Benzene, chloro-	
U221	25376-45-8	Benzenediamine, ar-methyl-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U028	117-81-7	1,2-Benzenedicarboxylic acid, [bis(2-ethyl-hexyl)] ester	
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	
U107	117-84-0	1,2-Benzenedicarboxylic acid, di-n-octyl ester	
U070	95-50-1	Benzene, 1,2-dichloro-	
U071	541-73-1	Benzene, 1,3-dichloro-	
U072	106-46-7	Benzene, 1,4-dichloro-	
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis-[4-chloro-	
U017	98-87-3	Benzene (dichloromethyl)-	
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl-	(R,T)
U239	1330-20-7	Benzene, dimethyl-	(I,T)
U201	108-46-3	1,3-Benzenediol	
U127	118-74-1	Benzene, hexachloro-	
U056	110-82-7	Benzene, hexahydro-	(I)
U220	108-88-3	Benzene, methyl-	
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-	
U106	606-20-2	Benzene, 1-methyl-2,6-dinitro-	
U055	98-82-8	Benzene, (1-methylethyl)-	(I)
U169	98-95-3	Benzene, nitro-	(I,T)
U183	608-93-5	Benzene, pentachloro-	
U185	82-68-8	Benzene, pentachloronitro-	
U020	98-09-9	Benzenesulfonic acid chloride or benzenesulfonyl chloride	(C,R)
U020	98-09-9	Benzenesulfonyl chloride	(C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-	
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)=bis [4-chloro-	
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)=bis [4-methoxy-	
U023	98-07-7	Benzene, (trichloromethyl)-	(C,R,T)
U234	99-35-4	Benzene, 1,3,5-trinitro-	(R,T)
U021	92-87-5	Benzidine	
U202	81-07-2	1,2-Benzisothiazol-3-(2H)-one, 1,1-dioxide and salts	
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-	
U090	94-58-6	1,3-Benzodioxole, 5-propyl-	
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	
U064	189-55-9	Benzo[rs]t]pentaphene	
U248	81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		phenylbutyl)-, and salts, when present at concentrations of 0.3% or less	
U022	50-32-8	Benzo[a]pyrene	
U197	106-51-4	p-Benzoquinone	
U023	98-07-7	Benzotrichloride	(C,R,T)
U085	1464-53-5	2,2'-Bioxirane	(I,T)
U021	92-87-5	(1,1'-Biphenyl)-4,4'-diamine	
U073	91-94-1	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-	
U091	119-90-4	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	
U095	119-93-7	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	
U225	75-25-2	Bromoform	
U030	101-55-3	4-Bromophenyl phenyl ether	
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-	
U031	71-36-3	1-Butanol	(I)
U159	78-93-3	2-Butanone	(I,T)
U160	1338-23-4	2-Butanone peroxide	(R,T)
U053	4170-30-3	2-Butenal	
U074	764-41-0	2-Butene, 1,4-dichloro-	(I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxybutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*), 7aalpha]]-	
U031	71-36-3	n-Butyl alcohol	(I)
U136	75-60-5	Cacodylic acid	
U032	13765-19-0	Calcium chromate	
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester	
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester	
U238	51-79-6	Carbamic acid, ethyl ester	
U178	815-53-2	Carbamic acid, methylnitroso-, ethyl ester	
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester	
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)]bis-, dimethyl ester	
U097	79-44-7	Carbamic chloride, dimethyl	
U114	111-54-6	Carbamodithioic acid, 1,2-ethanediyldis-, salts and esters	
U062	2303-16-4	Carbamodithioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	
U279	63-25-2	Carbaryl	
U372	10605-21-7	Carbendazim	
U367	1563-38-8	Carbofuran phenol	
U215	6533-73-9	Carbonic acid, dithallium(1+) salt	
U156	79-22-1	Carbonochloridic acid, methyl ester	(I,T)
U033	353-50-4	Carbon oxyfluoride	(R,T)
U211	56-23-5	Carbon tetrachloride	
U034	75-87-6	Chloral	
U035	305-03-3	Chlorambucil	
U036	57-74-9	Chlordane, technical	
U026	494-03-1	Chlornaphazine	
U037	108-90-7	Chlorobenzene	
U038	510-15-6	Chlorobenzilate	
U039	59-50-7	4-Chloro-m-cresol	
U042	110-75-8	2-Chloroethyl vinyl ether	
U044	67-66-3	Chloroform	
U046	107-30-2	Chloromethyl methyl ether	
U047	91-58-7	beta-Chloronaphthalene	
U048	95-57-8	o-Chlorophenol	
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride	
U032	13765-19-0	Chromic acid, calcium salt	
U050	218-01-9	Chrysene	
U051	-----	Creosote	
U052	1319-77-3	Cresylic acid	
U053	4170-30-3	Crotonaldehyde	
U055	98-82-8	Cumene	(I)
U246	506-68-3	Cyanogen bromide	
U197	106-51-4	1,4-Cyclohexadienedione	
U056	110-82-7	Cyclohexane	(I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha, 2alpha,3beta,4alpha, 5alpha,6beta)-	
U057	108-94-1	Cyclohexanone	(I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa-chloro-	
U058	50-18-0	Cyclophosphamide	
U240	94-75-7	2,4-D, salts and esters	
U059	20830-81-3	Daunomycin	
U060	72-54-8	DDD	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U061	50-29-3	DDT	
U062	2303-16-4	Diallate	
U063	53-70-3	Dibenz[a,h]anthracene	
U064	189-55-9	Dibenz[a,i]pyrene	
U066	96-12-8	1,2-Dibromo-3-chloropropane	
U069	84-74-2	Dibutyl phthalate	
U070	95-50-1	o-Dichlorobenzene	
U071	541-73-1	m-Dichlorobenzene	
U072	106-46-7	p-Dichlorobenzene	
U073	91-94-1	3,3'-Dichlorobenzidine	
U074	764-41-0	1,4-Dichloro-2-butene	(I,T)
U075	75-71-8	Dichlorodifluoromethane	
U078	75-35-4	1,1-Dichloroethylene	
U079	156-60-5	1,2-Dichloroethylene	
U025	111-44-4	Dichloroethyl ether	
U027	108-60-1	Dichloroisopropyl ether	
U024	111-91-7	Dichloromethoxy ethane	
U081	120-83-2	2,4-Dichlorophenol	
U082	87-65-0	2,6-Dichlorophenol	
U084	542-75-6	1,3-Dichloropropene	
U085	1464-53-5	1,2:3,4-Diepoxybutane	(I,T)
U108	123-91-1	1,4-Diethylene dioxide	
U395	5952-26-1	Diethylene glycol, dicarbamate	
U028	117-81-7	Diethylhexyl phthalate	
U086	1615-80-1	N,N-Diethylhydrazine	
U087	3288-58-2	O,O-Diethyl-S-methyl-dithiophosphate	
U088	84-66-2	Diethyl phthalate	
U089	56-53-1	Diethylstilbestrol	
U090	94-58-6	Dihydrosafrole	
U091	119-90-4	3,3'-dimethoxybenzidine	
U092	124-40-3	Dimethylamine	(I)
U093	60-11-7	Dimethylaminoazobenzene	
U094	57-97-6	7,12-Dimethylbenz[a]anthracene	
U095	119-93-7	3,3'-Dimethylbenzidine	
U096	80-15-9	Alpha,alpha-Dimethyl-benzylhydroperoxide	(R)
U097	79-44-7	Dimethylcarbamoyl chloride	
U098	57-14-7	1,1-Dimethylhydrazine	
U099	540-73-8	1,2-Dimethylhydrazine	
U101	105-67-9	2,4-Dimethylphenol	
U102	131-11-3	Dimethyl phthalate	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U103	77-78-1	Dimethyl sulfate	
U105	121-14-2	2,4-Dinitrotoluene	
U106	606-20-2	2,6-Dinitrotoluene	
U107	117-84-0	Di-n-octyl phthalate	
U108	123-91-1	1,4-Dioxane	
U109	122-66-7	1,2-Diphenylhydrazine	
U110	142-84-7	Dipropylamine	(I)
U111	621-64-7	Di-n-propylnitrosamine	
U041	106-89-8	Epichlorhydrin	
U001	75-07-0	Ethanal	(I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-	
U404	121-44-8	Ethanamine, N,N-diethyl-	
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	
U067	106-93-4	Ethane, 1,2-dibromo-	
U076	75-34-3	Ethane, 1,1-dichloro-	
U077	107-06-2	Ethane, 1,2-dichloro-	
U131	67-72-1	Ethane, 1,1,1,2,2,2-hexachloro-	
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-	
U117	60-29-7	Ethane, 1,1'-oxybis-	(I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-	
U184	76-01-7	Ethane, pentachloro-	
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-	
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-	
U218	62-55-5	Ethanethioamide	
U226	71-55-6	Ethane, 1,1,1-trichloro-	
U227	79-00-5	Ethane, 1,1,2-trichloro-	
U410	59669-26-0	Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester	
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-n-hydroxy-2-oxo- methyl ester	
U359	110-80-5	Ethanol, 2-ethoxy-	
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-	
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate	
U004	98-86-2	Ethanone, 1-phenyl	
U043	75-01-4	Ethene, chloro-	
U042	110-75-8	Ethene, 2-chloroethoxy-	
U078	75-35-4	Ethene, 1,1-dichloro-	
U079	156-60-5	Ethene, trans-1,2-dichloro-	
U210	127-18-4	Ethene, 1,1,2,2-tetrachloro-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U228	79-01-6	Ethene, trichloro-	
U112	141-78-8	Ethyl acetate	(I)
U113	140-88-5	Ethyl acrylate	(I)
U238	51-79-6	Ethyl carbamate (urethan)	
U117	60-29-7	Ethyl ether	(I)
U114	111-54-6	Ethylenebis(dithiocarbamic acid), salts and ester	
U067	106-93-4	Ethylene dibromide	
U077	107-06-2	Ethylene dichloride	
U359	110-80-5	Ethylene glycol monoethyl ether	
U115	75-21-8	Ethylene oxide	(I,T)
U116	96-45-7	Ethylene thiourea	
U076	75-34-3	Ethylidene dichloride	
U118	97-63-2	Ethyl methacrylate	
U119	62-50-0	Ethyl methanesulfonate	
U120	206-44-0	Fluoranthene	
U122	50-00-0	Formaldehyde	
U123	64-18-6	Formic acid	(C,T)
U124	110-00-9	Furan	(I)
U125	98-01-1	2-Furancarboxaldehyde	(I)
U147	108-31-6	2,5-Furandione	
U213	109-99-9	Furan, tetrahydro-	(I)
U125	98-01-1	Furfural	(I)
U124	110-00-9	Furfuran	(I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-	
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino) carbonyl]amino]-	
U126	765-34-4	Glycidylaldehyde	
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-	
U127	118-74-1	Hexachlorobenzene	
U128	87-68-3	Hexachlorobutadiene	
U130	77-47-4	Hexachlorocyclopentadiene	
U131	67-72-1	Hexachloroethane	
U132	70-30-4	Hexachlorophene	
U243	1888-71-7	Hexachloropropene	
U133	302-01-2	Hydrazine	(R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-	
U098	57-14-7	Hydrazine, 1,1-dimethyl-	
U099	540-73-8	Hydrazine, 1,2-dimethyl-	
U109	122-66-7	Hydrazine, 1,2-diphenyl-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U134	7664-39-3	Hydrofluoric acid or hydrogen fluoride	(C,T)
U134	7664-39-3	Hydrogen fluoride	(C,T)
U135	7783-06-4	Hydrogen sulfide or hydrogen sulfide H₂S	
U135	7783-06-4	Hydrogen sulfide H₂S	
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-	(R)
U116	96-45-7	2-Imidazolidinethione	
U137	193-39-5	Indeno[1,2,3cd]pyrene	
U190	85-44-9	1,3-Isobenzofurandione	
U140	78-83-1	Isobutyl alcohol	(I,T)
U141	120-58-1	Isosafrole	
U142	143-50-0	Kepone	
U143	303-34-4	Lasiocarpine	
U144	301-04-2	Lead acetate	
U146	1335-32-6	Lead, bis(acetato-O) tetrahydroxytri-	
U145	7446-27-7	Lead phosphate	
U146	1335-32-6	Lead subacetate	
U129	58-89-9	Lindane	
U163	70-25-7	MNNG	
U147	108-31-6	Maleic anhydride	
U148	123-33-1	Maleic hydrazide	
U149	109-77-3	Malononitrile	
U150	148-82-3	Melphalan	
U151	7439-97-6	Mercury	
U152	126-98-7	Methacrylonitrile	(I,T)
U092	124-40-3	Methanamine, N-methyl-	(I)
U029	74-83-9	Methane, bromo-	
U045	74-87-3	Methane, chloro-	(I,T)
U046	107-30-2	Methane, chloromethoxy-	
U068	74-95-3	Methane, dibromo-	
U080	75-09-2	Methane, dichloro-	
U075	75-71-8	Methane, dichlorodifluoro-	
U138	74-88-4	Methane, iodo-	
U119	62-50-0	Methanesulfonic acid, ethyl ester	
U211	56-23-5	Methane, tetrachloro-	
U153	74-93-1	Methanethiol	(I,T)
U225	75-25-2	Methane, tribromo-	
U044	67-66-3	Methane, trichloro-	
U121	75-69-4	Methane, trichlorofluoro-	
U036	57-74-9	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U154	67-56-1	Methanol	(I)
U155	91-80-5	Methapyrilene	
U142	143-50-0	1,3,4-Metheneo-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-	
U247	72-43-5	Methoxychlor	
U154	67-56-1	Methyl alcohol	(I)
U029	74-83-9	Methyl bromide	
U186	504-60-9	1-Methylbutadiene	(I)
U045	74-87-3	Methyl chloride	(I,T)
U156	79-22-1	Methyl chlorocarbonate	(I,T)
U226	71-55-6	Methylchloroform	
U157	56-49-5	3-Methylcholanthrene	
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)	
U068	74-95-3	Methylene bromide	
U080	75-09-2	Methylene chloride	
U159	78-93-3	Methyl ethyl ketone	(I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide	(R,T)
U138	74-88-4	Methyl iodide	
U161	108-10-1	Methyl isobutyl ketone	(I)
U162	80-62-6	Methyl methacrylate	(I,T)
U161	108-10-1	4-Methyl-2-pentanone	(I)
U164	56-04-2	Methylthiouracil	
U010	50-07-7	Mitomycin	(C)
U059	20830-81-3	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxohexopyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-	
U167	134-32-7	1-Naphthalenamine	
U168	91-59-8	2-Naphthalenamine	
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-	
U165	91-20-3	Naphthalene	
U047	91-58-7	Naphthalene, 2-chloro-	
U166	130-15-4	1,4-Naphthalenedione	
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-(1,1-biphenyl)-4,4'diyl)]-bis(azo)bis (5-amino-4-hydroxy)-, tetrasodium salt	
U279	63-25-2	1-Naphthalenol, methylcarbamate	
U166	130-15-4	1,4-Naphthoquinone	
U167	134-32-7	alpha-Naphthylamine	
U168	91-59-8	beta-Naphthylamine	
U217	10102-45-1	Nitric acid, thallium(1+) salt	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U169	98-95-3	Nitrobenzene	(I,T)
U170	100-02-7	p-Nitrophenol	
U171	79-46-9	2-Nitropropane	(I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine	
U173	1116-54-7	N-Nitrosodiethanolamine	
U174	55-18-5	N-Nitrosodiethylamine	
U176	759-73-9	N-Nitroso-N-ethylurea	
U177	684-93-5	N-Nitroso-N-methylurea	
U178	615-53-2	N-Nitroso-N-methylurethane	
U179	100-75-4	N-Nitrosopiperidine	
U180	930-55-2	N-Nitrosopyrrolidine	
U181	99-55-8	5-Nitro-o-toluidine	
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide	
U058	50-18-0	2H-1,3,2-Oxazaphosphorin, 2-amine, N,N-bis(2-chloroethyl) tetrahydro-, 2-oxide	
U115	75-21-8	Oxirane	(I,T)
U126	765-34-4	Oxiranecarboxyaldehyde	
U041	106-89-8	Oxirane, 2-(chloromethyl)-	
U182	123-63-7	Paraldehyde	
U183	608-93-5	Pentachlorobenzene	
U184	76-01-7	Pentachloroethane	
U185	82-68-8	Pentachloronitrobenzene	
See F027	87-86-5	Pentachlorophenol	
U161	108-10-1	Pentanone, 4-methyl-	
U186	98-95-3	Nitrobenzene	(I,T)
U187	62-44-2	Phenacetin	
U188	108-95-2	Phenol	
U048	95-57-8	Phenol, 2-chloro-	
U039	59-50-7	Phenol, 4-chloro-3-methyl-	
U081	120-83-2	Phenol, 2,4-dichloro-	
U082	87-65-0	Phenol, 2,6-dichloro-	
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-	
U101	105-67-9	Phenol, 2,4-dimethyl-	
U052	1319-77-3	Phenol, methyl-	
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate	
U170	100-02-7	Phenol, 4-nitro-	
See F027	87-86-5	Phenol, pentachloro-	
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-	
See F027	95-95-4	Phenol, 2,4,5-trichloro-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
See F027	88-06-2	Phenol, 2,4,6-trichloro-	
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-	
U145	7446-27-7	Phosphoric acid, lead salt	
U087	3288-58-2	Phosphorodithioic acid, 0,0-diethyl-S-methyl ester	
U189	1314-80-3	Phosphorus sulfide	(R)
U190	85-44-9	Phthalic anhydride	
U191	109-06-8	2-Picoline	
U179	100-75-4	Piperidine, 1-nitroso-	
U192	23950-58-5	Pronamide	
U194	107-10-8	1-Propanamine	(I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-	
U110	142-84-7	1-Propanamine, N-propyl-	(I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-	
U083	78-87-5	Propane, 1,2-dichloro-	
U149	109-77-3	Propanedinitrile	
U171	79-46-9	Propane, 2-nitro-	(I,T)
U027	108-60-1	Propane, 2,2'oxybis[2-chloro-	
U193	1120-71-4	1,3-Propane sultone	
See F027	93-72-1	Propionic acid, 2-(2,4,5-trichlorophenoxy)-	
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)	
U140	78-83-1	1-Propanol, 2-methyl-	(I,T)
U002	67-64-1	2-Propanone	(I)
U007	79-06-1	2-Propenamide	
U084	542-75-6	Propene, 1,3-dichloro-	
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-	
U009	107-13-1	2-Propenenitrile	
U152	126-98-7	2-Propenenitrile, 2-methyl-	(I,T)
U008	79-10-7	2-Propenoic acid	(I)
U113	140-88-5	2-Propenoic acid, ethyl ester	(I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester	(I,T)
U373	122-42-9	Propham	
U411	114-26-1	Propoxur	
U194	107-10-8	n-Propylamine	(I,T)
U083	78-87-5	Propylene dichloride	
U387	52888-80-9	Prosulfocarb	
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-	
U196	110-86-1	Pyridine	
U191	109-06-8	Pyridine, 2-methyl-	
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		chloroethyl)amino]-	
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	
U180	930-55-2	Pyrrole, tetrahydro-N-nitroso-	
U200	50-55-5	Reserpine	
U201	108-46-3	Resorcinol	
U202	81-07-2	Saccharin and salts	
U203	94-59-7	Safrole	
U204	7783-00-8	Selenious acid or selenious dioxide	
U204	7783-00-8	Selenium dioxide	
U205	7488-56-4	Selenium sulfide or selenium sulfide SeS₂	(R,T)
U205	7488-56-4	Selenium sulfide SeS₂	(R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)	
See F027	93-72-1	Silvex	
U206	18883-66-4	Streptozotocin	
U103	77-78-1	Sulfuric acid, dimethyl ester	
U189	1314-80-3	Sulfur phosphide	(R)
See F027	93-76-5	2,4,5-T	
U207	95-94-3	1,2,4,5-Tetrachlorobenzene	
U208	630-20-6	1,1,1,2-Tetrachloroethane	
U209	79-34-5	1,1,2,2-Tetrachloroethane	
U210	127-18-4	Tetrachloroethylene	
See F027	58-90-2	2,3,4,6-Tetrachlorophenol	
U213	109-99-9	Tetrahydrofuran	(I)
U214	563-68-8	Thallium (I) acetate	
U215	6533-73-9	Thallium (I) carbonate	
U216	7791-12-0	Thallium (I) chloride or thallium chloride TlCl	
U216	7791-12-0	Thallium chloride TlCl	
U217	10102-45-1	Thallium (I) nitrate	
U218	62-55-5	Thioacetamide	
U410	59669-26-0	Thiodicarb	
U153	74-93-1	Thiomethanol	(I,T)
U244	137-26-8	Thioperoxydicarbonic diamide [(H ₂ N)C(S)] ₂ S ₂ , tetramethyl-	
U409	23564-05-8	Thiophanate-methyl	
U219	62-56-6	Thiourea	
U244	137-26-8	Thiram	
U220	108-88-3	Toluene	
U221	25376-45-8	Toluenediamine	
U223	26471-62-5	Toluene diisocyanate	(R,T)
U328	95-53-4	o-Toluidine	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U353	106-49-0	p-Toluidine	
U222	636-21-5	o-Toluidine hydrochloride	
U389	2303-17-5	Triallate	
U011	61-82-5	1H-1,2,4-Triazol-3-amine	
U227	79-00-5	1,1,2-Trichloroethane	
U228	79-01-6	Trichloroethylene	
U121	75-69-4	Trichloromonofluoromethane	
See F027	95-95-4	2,4,5-Trichlorophenol	
See F027	88-06-2	2,4,6-Trichlorophenol	
U404	121-44-8	Triethylamine	
U234	99-35-4	1,3,5-Trinitrobenzene	(R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-	
U235	126-72-7	Tris(2,3-Dibromopropyl) phosphate	
U236	72-57-1	Trypan blue	
U237	66-75-1	Uracil mustard	
U176	759-73-9	Urea, N-ethyl-N-nitroso-	
U177	684-93-5	Urea, N-methyl-N-nitroso-	
U043	75-01-4	Vinyl chloride	
U248	81-81-2	Warfarin, and salts, when present at a concentration of 0.3% or less	
U239	1330-20-7	Xylene	(I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-, methyl ester	
U249	1314-84-7	Zinc phosphide, when present at concentration 10% or less	

R 299.9226 Table 205c; discarded commercial chemical products; off-specification species; container residues; and spill residues thereof as toxic hazardous wastes.

Rule 226. Table 205c reads as follows:

Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
001U	50-76-0	Actinomycin D	
002U	107-05-1	Allyl chloride	
003U	117-79-3	2-aminoanthraquinone	
004U	60-09-3	Aminoazobenzene	
005U	97-56-3	0-aminoazotoluene	

Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
006U	92-67-1	4-aminobiphenyl	
007U	132-32-1	3-amino-9-ethyl carbazole	
157U	57360-17-5	3-amino-9-ethyl carbazole hydrochloride	
008U	82-28-0	1-amino-2-methyl anthraquinone	
009U	101-05-3	Anilazine	
158U	142-04-1	Aniline hydrochloride	
011U	90-04-0	o-Anisidine	
012U	134-29-2	o-Anisidine hydrochloride	
013U	Class 01-0	Antimony (when in the form of particles 100 microns or less)	
014U	1397-94-0	Antimycin A	
147U	2642-71-9	Azinphos-ethyl	
148U	86-50-0	Azinphos-methyl	
159U	103-33-3	Azobenzene	
015U	101-27-9	Barban	
016U	22781-23-3	Bendiocarb	
017U	17804-35-2	Benomyl	
020U	1689-84-5	Bromoxynil	
160U	106-99-0	1,3-Butadiene	
161U	85-68-7	Butyl benzl phthalate	
022U	2425-06-1	Captafol	
023U	133-06-2	Captan	
024U	63-25-3	Carbaryl	
025U	1563-66-2	Carbofuran	
027U	786-19-6	Carbophenothion	
028U	Class 08-6	Chloramines	
152U	470-90-6	Chlorfenuinphos	
029U	2921-88-2	Chloropyrifos	
030U	Class 05-3	Chlorinated dibenzofurans (other than those listed in Table 202)	
031U	Class 05-4	Chlorinated dioxins (other than those listed in Table 202)	
032U	7782-50-5	Chlorine gas	
033U	107-07-3	2-Chloroethanol	
034U	6959-48-4	3-(Chloromethyl) pyridine hydrochloride	
150U	106-48-9	p-chlorophenol	
162U	7005-72-3	1-chloro-4-phenoxybenzene	
036U	5131-60-2	4-chloro-m-phenylenediamine	
037U	95-83-0	4-chloro-o-phenylenediamine	
038U	126-99-8	Chloroprene	

Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
163U	590-21-6	1-chloropropene	
151U	96-79-4	5-chloro-o-toluidene	
040U	1420-04-8	Clonitralid	
041U	Class 01-6	Cobalt (when in the form of particles 100 microns or less)	
042U	56-72-4	Coumasphos	
043U	120-71-8	p-Cresidine	
044U	7700-17-6	Crotoxyphos	
046U	66-81-9	Cycloheximide	
164U	72-55-9	P,P' DDE	
048U	39156-41-7	2,4-Diaminoanisole sulfate	
049U	101-80-4	4,4'-Diaminodiphenyl ether	
050U	95-80-7	2,4-Diaminotoluene	
051U	333-41-5	Diazinon	
052U	117-80-6	Dichlone	
054U	62-73-7	Dichlorvos	
055U	141-66-2	Dichrotophos	
056U	64-67-5	Diethyl sulfate	
165U	105-55-5	N,N'-Diethylthiourea	
057U	39300-45-3	Dinocap	
058U	78-34-2	Dioxathion	
059U	2104-64-5	EPN	
166U	106-88-7	1,2-Epoxybutane	
061U	563-12-2	Ethion	
063U	115-90-2	Fensulfothion	
064U	55-38-9	Fenthion	
065U	33245-39-5	Fluchloralin	
068U	680-31-9	Hexamethyl phosphoramidate	
070U	123-31-9	Hydroquinone	
071U	1072-52-2	N-(2-Hydroxyethyl) ethyleneimine	
072U	14380-61-1	Hypochlorite	
073U	54-85-3	Isonicotinic acid hydrazine	
167U	59299-51-3	Kanechlor C	
074U	463-51-4	Ketene	
075U	78-97-7	Lactonitril	
076U	21609-90-5	Leptophos	
077U	Class 02-0	Lithium and compounds	
078U	569-64-2	Malachite green	
079U	121-75-5	Malathion	
082U	838-88-0	4,4'-Methylenebis(2-methylaniline)	

Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
083U	101-61-1	4,4'-Methylenebis(N,N-dimethylaniline)	
086U	90-12-0	1-Methylnaphthalene	
088U	7786-34-7	Mevinphos	
089U	315-18-4	Mexacarbate	
090U	2385-85-5	Mirex	
092U	6923-22-4	Monocrotophos	
093U	505-60-2	Mustard gas	
094U	300-76-5	Naled	
095U	2243-62-1	1,5-Naphthalenediamine	
096U	Class 02-2	Nickel (when in the form of particles 100 microns or less)	
097U	61-57-4	Niridazole	
098U	139-94-6	Nithiazide	
099U	602-87-9	5-Nitroacenaphthene	
100U	99-59-2	Nitro-o-anisidine	
101U	92-93-3	4-Nitrobiphenyl	
102U	1836-75-5	Nitrofen	
103U	531-82-8	N-(4-(5-nitro-2-furanyl)-2-thiazolyl)-acetamide	
104U	51-75-2	Nitrogen mustard	
106U	156-10-5	p-Nitrosodiphenylamine	
108U	4549-40-0	N-Nitrosomethylvinylamine	
108U	135-20-6	N-nitroso-N-phenylhydroxylamine, ammonium salt	
169U	29082-74-4	Octachlorostyrene	
110U	301-12-2	Oxydemeton-methyl	
111U	1910-42-5	Paraquat dichloride	
112U	79-21-0	Peroxyacetic acid	
113U	136-40-3	Phenazopyridine hydrochloride	
115U	50-06-6	Phenobarbitol	
116U	57-41-0	Phenytoin	
117U	630-93-3	Phenytoin sodium	
118U	4104-14-7	Phosazetim	
119U	732-11-6	Phosmet	
120U	13171-21-6	Phosphamidon	
121U	120-62-7	Piperonyl sulfoxide	
122U	Class 07-8	Polybrominated biphenyls (PBB)	
124U	57-57-8	Propiolactone	
127U	51-52-5	Propylthiouracil	
128U	83-749-4	Rotenone	
129U	57-56-7	Semicarbazide	
170U	563-41-7	Semicarbazide hydrochloride	

Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
153U	62-74-8	Sodium fluoroacetate	
131U	100-42-5	Styrene	
132U	95-06-7	Sulfallate	
134U	72-54-8	TDE	
135U	107-49-3	TEPP	
136U	13071-79-9	Terbufos	
137U	961-11-5	Tetrachlorvinphos	
138U	139-65-1	4,4'-Thiodianiline	
139U	95-53-4	o-Toluidine	
140U	Class 08-4	Triaryl phosphate esters	
154U	56-35-9	Bis(tri-n-butyl tin) oxide	
171U	688-73-3	Tributyltin (and other salts and esters)	
172U	87-61-6	1,2,3-Trichlorobenzene	
173U	120-82-1	1,2,4-Trichlorobenzene	
141U	52-68-6	Trichlorfon	
142U	1582-09-8	Trifluralin	
143U	137-17-7	2,4,5-Trimethylaniline	
174U	51-79-6	Urethane	
175U	593-60-2	Vinyl bromide	

R 299.9228 Universal wastes.

Rule 228. (1) This rule provides an alternate set of standards under which universal wastes may be managed instead of full regulation as hazardous waste under these rules. The requirements of this rule apply to the universal wastes identified in this subrule and to persons managing the universal wastes. Universal wastes that are not managed pursuant to this rule are subject to full regulation as hazardous waste under these rules. Except as provided in subrule (2) of this rule, all of the following universal wastes are exempt from full regulation as hazardous waste under these rules if they are managed pursuant to the requirements of this rule:

- (a) A battery, including a spent lead-acid battery that is not managed pursuant to R 299.9804.
- (b) A pesticide, including both of the following:
 - (i) A recalled pesticide, including the following:
 - (A) A stock of a suspended and cancelled pesticide that is part of a voluntary or mandatory recall under section 19(b) of the federal insecticide, fungicide, and rodenticide act, including, but not limited to, a stock owned by the registrant responsible for conducting the recall.
 - (B) A stock of a suspended or cancelled pesticide, or of a pesticide that is not in compliance with the federal insecticide, fungicide, and rodenticide act, that is part of a voluntary recall by the registrant.
 - (ii) A stock of an unused pesticide product other than a product specified in subrule (1)(b)(i) of this rule that is collected and managed as part of a waste pesticide collection program.
- (c) A thermostat.
- (d) A mercury switch.
- (e) A mercury thermometer.

- (f) A waste device which contains only elemental mercury as the hazardous waste constituent.
- (g) ~~An electric~~ lamp.
- (h) A pharmaceutical.
- (i) Consumer electronics.
- (j) Antifreeze as defined in R 299.9101.
- (2) The requirements of this rule do not apply to **any of** the following:
 - (a) A spent lead-acid battery that is managed pursuant to R 299.9804.
 - (b) A battery that is not a waste under part 2 of these rules. A used battery becomes a waste when it is discarded. An unused battery becomes a waste on the date the universal waste handler decides to discard it.
 - (c) A battery that is not hazardous waste. A battery is a hazardous waste if it exhibits 1 or more of the hazardous characteristics identified in R 299.9212.
 - (d) A pesticide identified in subrule (1) of this rule that is managed by farmers in compliance with R 299.9204(3)(b).
 - (e) A pesticide that does not meet the requirements in subrule (1) of this rule. The pesticide shall be managed pursuant to parts 2 to 8 of these rules.
 - (f) A pesticide that is not a waste under part 2 of these rules. A recalled pesticide becomes a waste on the first date on which the generator of the pesticide agrees to participate in the recall and the person conducting the recall decides to discard the pesticide. An unused pesticide becomes a waste on the date that the generator decides to discard it. The following pesticides are not wastes:
 - (i) A recalled pesticide if the person conducting the recall is in compliance with either of the following provisions:
 - (A) The person has not made a decision to discard the pesticide. Until a decision is made, the pesticide does not meet the definition of a waste pursuant to R 299.9202 and, therefore, is not considered a hazardous waste subject to regulations under these rules. The pesticide remains subject to the requirements of the federal insecticide, fungicide, and rodenticide act.
 - (B) The person has made a decision to use a management option that does not result in the pesticide meeting the definition of a waste pursuant to R 299.9202. The pesticide, including a recalled pesticide that is exported to a foreign destinations for use or reuse, remains subject to the requirements of the federal insecticide, fungicide, and rodenticide act.
 - (ii) An unused pesticide product if the generator of the unused pesticide product has not decided to discard the product. The pesticide product remains subject to the requirements of the federal insecticide, fungicide, and rodenticide act.
 - (g) A pesticide that is not hazardous waste. A pesticide is a hazardous waste if it is listed pursuant to R 299.9213 or R 299.9214 or if it exhibits 1 or more of the hazardous characteristics identified in R 299.9212.
 - (h) A thermostat, mercury switch, mercury thermometer, or a waste device which contains only elemental mercury as the hazardous waste constituent that is not a waste under part 2 of these rules. A used thermostat, mercury switch, mercury thermometer, or a used waste device which contains only elemental mercury as the hazardous waste constituent becomes a waste on the date it is discarded. An unused thermostat, mercury switch, mercury thermometer, and an unused waste device which contains only elemental mercury as the hazardous waste constituent becomes a waste on the date that the universal waste handler decides to discard it.
 - (i) A thermostat, mercury switch, mercury thermometer, and a waste device which contains only elemental mercury as the hazardous waste constituent that is not hazardous waste. A thermostat, mercury switch, mercury thermometer, and a waste device which contains only elemental mercury as

the hazardous waste constituent is a hazardous waste if it exhibits 1 or more of the hazardous characteristics identified in R 299.9212.

(j) ~~An electric~~ lamp that is not a waste under part 2 of these rules. A used ~~electric~~-lamp becomes a waste on the date that the universal waste handler permanently removes it from its fixture. An unused ~~electric~~-lamp becomes a waste on the date that the universal waste handler decides to discard it.

(k) ~~An electric~~ lamp that is not a hazardous waste. An ~~electric~~ lamp is a hazardous waste if it exhibits 1 or more of the hazardous characteristics identified in R 299.9212.

(l) A pharmaceutical that is not a waste under part 2 of these rules. An unused pharmaceutical becomes a waste on the date that the universal waste handler decides to discard it.

(m) A pharmaceutical that is not a hazardous waste. A waste pharmaceutical is a hazardous waste if it is listed under R 299.9213 or R 299.214 or if it exhibits 1 or more hazardous waste characteristics under R 299.9212.

(n) Consumer electronics that are not a waste under part 2 of these rules. A consumer electronic becomes a waste on the date that the universal waste handler decides to discard it.

(o) Consumer electronics that are not a hazardous waste. A consumer electronic is a hazardous waste if it is listed under R 299.9213 or R 299.214 or if it exhibits 1 or more hazardous waste characteristics under R 299.9212.

(p) Antifreeze that is not a waste under Part 2 of these rules. Used antifreeze becomes a waste when it is discarded. Unused antifreeze becomes a waste on the date that the universal waste handler decides to discard it.

(q) Antifreeze that is not a hazardous waste. Antifreeze is a hazardous waste if it is listed in R 299.9213 or R 299.9214, or if it exhibits 1 or more hazardous waste characteristics under R 299.9212.

(3) A person that manages household wastes that are exempt from regulation pursuant to R 299.9204(2)(a) and are also of the same type as the universal wastes identified in subrule (1) of this rule or conditionally exempt small quantity generator wastes that are exempt from regulation pursuant to R 299.9205 and are also of the same type as the universal wastes identified in subrule (1) of this rule may, at the person's option, manage the wastes pursuant to this rule. A person who commingles household wastes or conditionally exempt small quantity generator wastes with universal waste regulated pursuant to this rule shall manage the commingled waste under the requirements of this rule.

(4) A universal waste small quantity handler shall comply with all of the following requirements:

(a) The requirements of 40 C.F.R. part 273, subpart B, except §§273.10 and 273.18(b).

(b) If the universal waste small quantity handler is self-transporting universal waste offsite, then the handler becomes the universal waste transporter for the self-transportation activities and shall comply with the requirements of subrule (6) of this rule while transporting the universal wastes.

(c) If the universal waste small quantity handler handles ~~electric~~-lamps, then all of the following additional requirements apply:

(i) The lamps shall not be crushed or broken.

(ii) The lamps shall be managed in a manner that prevents breakage or the release of any universal waste or components of universal waste by containing unbroken lamps in structurally sound packaging that is compatible with the contents of the lamps and will prevent breakage during normal handling conditions. The packaging shall remain closed and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(iii) All of the following shall be done with respect to a release of universal waste or components of a universal waste, including lamp fragments or residues, and all lamps that show evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment:

(A) The release of universal waste or components of a universal waste, including lamp fragments or residues, and all lamps that show evidence of breakage, leakage, or damage that could cause the release

of mercury or other hazardous constituents to the environment shall be immediately contained in packaging that is structurally sound and compatible with the contents of the lamps. The packaging shall remain closed once the material has been contained and shall lack evidence of leakage, spillage, or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

(B) A determination shall be made whether any of the materials resulting from the release or the lamps that show evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment are hazardous waste, and if the released materials or lamps are hazardous waste, then the released materials shall be managed pursuant to the applicable requirements of the act and these rules.

(iv) The lamps or packaging in which the lamps are contained shall be labelled with the words "universal waste ~~electric~~-lamps," "waste ~~electric~~-lamps," or "used ~~electric~~-lamps."

(d) If the universal waste small quantity handler handles mercury switches, mercury thermometers, or waste devices which contain only elemental mercury as the hazardous waste constituent, then 40 C.F.R. §273.13(c) shall be applicable to the mercury switches, mercury thermometers, and waste devices which contain only elemental mercury as the hazardous waste constituent.

(e) If the universal waste small quantity handler manages pharmaceuticals, then all of the following additional requirements shall apply:

(i) The pharmaceuticals shall be managed in a manner that prevents releases of any universal waste or component of a universal waste to the environment. The pharmaceuticals shall be contained in a container that remains closed, except to add or remove universal waste, is structurally sound, is compatible with the pharmaceutical, and lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable circumstances, or if the container does not meet these conditions, is overpacked in a container that does meet these conditions.

(ii) If a release of pharmaceuticals or component of pharmaceuticals occurs, the release shall be immediately cleaned up and properly characterized for disposal.

(iii) A universal waste handler may disassemble packaging and sort pharmaceuticals.

(iv) Incompatible pharmaceuticals shall be segregated. Adequate distance shall be employed to prevent the contact of incompatible materials.

(f) If the universal waste small quantity handler manages consumer electronics, then all of the following additional requirements apply:

(i) The consumer electronics shall be managed in a manner that prevents breakage or the release of any universal waste or components of universal waste by containing the consumer electronics in packaging that will prevent breakage during normal handling conditions.

(ii) Label the outer packaging or container with the words "universal waste consumer electronics" or "universal waste electronics."

(iii) Properly contain, classify, and dispose of releases and potential releases of consumer electronics and residues.

(g) A universal waste small quantity handler handling consumer electronics may perform any of the following activities and shall still be regulated as a universal waste small quantity handler:

(i) Repair the consumer electronics for potential direct reuse.

(ii) Remove other universal wastes from the consumer electronics.

(iii) Remove individual modular components for direct reuse.

(h) If the universal waste small quantity handler manages antifreeze, then all of the following additional requirements shall apply:

(i) The antifreeze shall be managed in a manner that prevents releases of any universal waste or component of a universal waste to the environment.

(ii) The antifreeze shall be contained in 1 or more of the following manners:

(A) A container that remains closed, except to add or remove universal waste, is structurally sound, is compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(B) A container that does not meet the requirements of subparagraph (A) of this paragraph, provided that the container is overpacked in a container that does meet the requirements of subparagraph (A) of this paragraph.

(C) A tank that meets the requirements of 40 C.F.R. part 265, subpart J, except for 40 C.F.R. §§265.197(c), 265.200, and 265.201.

(D) A transport vehicle or vessel that remains closed, except to add or remove universal waste, is structurally sound, is compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonable foreseeable conditions.

(iii) If a release of antifreeze or a component of antifreeze occurs, the release shall be immediately cleaned up and properly characterized for disposal.

(iv) The containers or tanks used to manage the antifreeze shall be labeled with the words "universal waste antifreeze," "waste antifreeze," or "used antifreeze."

(5) A universal waste large quantity handler shall comply with all of the following requirements:

(a) Maintain the universal waste large quantity handler designation through the end of the calendar year in which a total of 5,000 kilograms or more of universal waste is accumulated.

(b) The requirements of 40 C.F.R. part 273, subpart C, except §§273.30 and 273.38(b).

(c) If the universal waste large quantity handler is self-transporting universal waste off site, then the handler becomes the universal waste transporter for the self-transportation activities and shall comply with the requirements of subrule (6) of this rule while transporting the universal wastes.

(d) If the universal waste large quantity handler handles ~~electric~~ lamps, all of the additional requirements of subrule (4)(c) of this rule.

(e) If the universal waste large quantity handler handles mercury switches, mercury thermometers, or waste devices which contain only elemental mercury as the hazardous waste constituent, then 40 C.F.R. §273.33(c) shall be applicable to the mercury switches, mercury thermometers, and waste devices which contain only elemental mercury as the hazardous waste constituent.

(f) If the universal waste large quantity handler handles pharmaceuticals, all of the additional requirements of subrule (4)(e) of this rule.

(g) If the universal waste large quantity handler handles consumer electronics, all of the additional requirements of subrules (4)(f) and (g) of this rule.

(h) If the universal waste large quantity handler handles antifreeze, all of the additional requirements of subrule (4)(h) of this rule.

(6) A universal waste transporter shall comply with both of the following requirements:

(a) The requirements of 40 C.F.R. part 273, subpart D, except §§273.50 and 273.53.

(b) Store universal wastes at a universal waste transfer facility for 10 days or less. If the transporter stores universal wastes for more than 10 days, then the transporter becomes a universal waste handler and shall comply with the applicable requirements of subrules (4) and (5) of this rule while storing the universal wastes.

(7) Except as provided for in subrules (8) and (9) of this rule, an owner or operator of a destination facility shall comply with all of the following requirements:

(a) The requirements of parts 5 to 8 of these rules and the notification requirements under section 3010 of RCRA.

(b) The requirements of 40 C.F.R. §§273.61 and 273.62.

(c) The requirements of the act and these rules if the owner or operator generates waste as a result of recycling universal waste.

(8) An owner or operator of a destination facility that recycles a particular universal waste without storing the universal waste before recycling shall comply with R 299.9206(1)(c).

(9) An owner or operator of a destination facility that stores electric lamps before recycling the electric lamps at the facility shall comply with R 299.9206(5).

(10) A person who manages universal waste that is imported from a foreign country into the United States shall comply with the following applicable requirements immediately after the universal waste enters the United States:

- (a) The requirements of subrule (4) of this rule if a small quantity handler of universal waste.
- (b) The requirements of subrule (5) of this rule if a large quantity handler of universal waste.
- (c) The requirements of subrule (6) of this rule if a transporter of universal waste.
- (d) The requirements of subrules (7) to (9) of this rule if a universal waste destination facility.
- (e) The requirements of this rule and R 299.9312 if managing universal waste that is imported from an organization for economic cooperation and development country specified in 40 C.F.R. §262.58(a)(1).

(11) The provisions of 40 C.F.R. part 273, subparts B to E, except §§273.10, 273.18(b), 273.30, 273.38(b), 273.50, 273.53, and 273.60, are adopted by reference in R 299.11003. For the purposes of the adoption of these provisions, the term "department" shall replace the term "EPA," except in 40 C.F.R. §§273.20(b) and (c), 273.32(a)(3), 273.40 (b) and (c), and 273.56, the term "director" shall replace the term "regional administrator," the term "R 299.9212" shall replace the term "40 CFR part 261, subpart C," the term "R 299.9306" shall replace the term "40 CFR 262.34," the term "part 3 of these rules" shall replace the term "40 CFR part 262," and the term "parts 2 to 8 of these rules" shall replace the term "40 CFR parts 260 through 272."

R 299.9230 Comparable and syngas fuels exclusion.

Rule 230. (1) Wastes that meet the following comparable or syngas fuel requirements are not considered wastes for the purposes of the act and these rules **if all of the requirements of 40 C.F.R. §261.38(b) are met:**

- (a) For comparable fuels, all of the following comparable fuel specifications:
 - (i) The waste has a heating value of at least 5,000 BTU per pound.
 - (ii) The waste has a maximum viscosity of 50 CS, as fired.
 - (iii) For compounds listed in table 1 of 40 C.F.R. §261.38, the specification levels and minimum required detection limits specified in 40 C.F.R. §261.38.

(b) For synthesis-gas fuel that is generated from a hazardous waste, all of the following syngas fuel specifications:

- (i) The waste has a minimum BTU value of 100 BTU per standard cubic foot.
- (ii) The waste contains less than 1 part per million by volume of total halogens.
- (iii) The waste contains less than 300 parts per million by volume of total nitrogen other than diatomic nitrogen (N₂).
- (iv) The waste contains less than 200 parts per million by volume of hydrogen sulfide.
- (v) The waste contains less than 1 part per million by volume of each hazardous constituent in the target list 40 C.F.R. part 261, appendix VIII.

(2) ~~Wastes that meet comparable fuel or syngas fuel specifications provided in subrule (1) of this rule are excluded from the definition of waste provided that all of the requirements of 40 C.F.R. §261.38(c) are met.~~ **Hazardous waste shall not be blended to meet the comparable fuel specifications under subrule (1)(a)(i) and (iii) of this rule.**

(3) **Hazardous waste may be blended to meet the viscosity specification in subrule (1)(a)(ii) of this rule if all of the following requirements are met:**

- (a) **As generated and prior to any blending, manipulation, or processing, meet the constituent**

and heating value specifications of subrule (1)(a)(i) and (iii) of this rule.

(b) The blending is performed at a facility that is subject to the applicable requirements of R 299.9306 and Part 6 of these rules.

(c) The blending does not violate the dilution prohibition in subrule (8) of this rule.

(4) A hazardous waste may be treated to meet the specifications for comparable fuel under subrule (1)(a) of this rule if the treatment meets all of the following requirements:

(a) The treatment destroys or removes the constituents listed in the specification or raises the heating value by removing or destroying the hazardous constituents or materials.

(b) The treatment is performed at a facility that is subject to the applicable requirements of R 299.9306 and Part 6 of these rules.

(c) The treatment does not violate the dilution prohibition in subrule (8) of this rule.

(5) Residuals resulting from the treatment of a hazardous waste listed under these rules to generate a comparable fuel are considered a hazardous waste.

(6) A syngas fuel may be generated from the processing of hazardous waste to meet the exclusion specifications in subrule (1)(b) of this rule if all of the following requirements are met:

(a) The processing destroys or removes the constituents listed in the specification or raises the heating value by removing or destroying the hazardous constituents or materials.

(b) The processing is performed at a facility that is subject to the applicable requirements of R 299.9306 and Part 6 of these rules.

(c) The processing does not violate the dilution prohibition in subrule (8) of this rule.

(7) Residuals resulting from the processing of hazardous waste listed under these rules to generate a syngas fuel are considered a hazardous waste.

(8) A generator, transporter, handler, or owner or operator shall not in any way dilute a hazardous waste to meet the comparable specifications in subrule (1)(a)(i) or (iii) of this rule or the syngas specifications in subrule (1)(b) of this rule.

(9) An excluded comparable or syngas fuel loses its exclusion if any person managing the fuel fails to comply with the conditions of the exclusion under this rule and the material shall be managed as a hazardous waste from the point of generation.

(310) The provisions of 40 C.F.R. §261.38(b), ~~except for 40 C.F.R. §261.38(a) and (b),~~ are adopted by reference in R 299.11003. For the purposes of this adoption, the word "waste" shall replace the words "solid waste," the word "director" shall replace the words "state RCRA director," "state CAA director," **"state director,"** and "regional director," the words "part 6 of these rules" shall replace the words "subpart O of parts 264 or 265 of this chapter," the reference "R 299.9306" shall replace the reference "§262.34," ~~and the reference "R 299.9206(1)" shall replace the reference "§261.6(c),"~~ **the words "part 2 of these rules" shall replace the references to §§261.21 through 261.24, 261.31, and 261.33, the term "R 299.9230" shall replace the reference to §261.38, and the term "R 299.9302" shall replace the reference to §262.11.**

PART 3. GENERATORS OF HAZARDOUS WASTE

R 299.9301 Applicability.

Rule 301. (1) This part establishes requirements for generators of hazardous waste.

(2) The provisions of R 299.9205(5) shall be used to determine the applicability of the requirements of this part that are dependent on calculations of the quantity of hazardous waste generated each calendar month.

(3) A generator who treats, stores, or disposes of hazardous waste on-site shall comply with all of the following requirements with respect to that waste:

- (a) The provisions of R 299.9302, R 299.9303, R 299.9306, R 299.9307(1) and (5), and R 299.9308(4).
- (b) The applicable requirements of parts 5, 6, 7, and 8 of these rules for the treatment, storage, and disposal.
- (c) The provisions of R 299.9204(3)(b), if applicable.
- (4) Any person who imports hazardous waste into the United States shall comply with the standards in this part that are applicable to generators.
- (5) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility shall comply with the generator standards established in this part.
- (6) In addition to complying with the provisions of this part, a generator who uses his or her own vehicle to transport hazardous waste shall comply with the applicable requirements of part 4 of these rules.
- (7) Any person who exports or imports ~~federal hazardous wastes~~ **that are considered hazardous under U.S. procedures** ~~subject to the manifesting requirements of part 3 of these rules or subject to the universal waste provisions of R 299.9228, to or from the countries listed in 40 C.F.R. §262.58(a)(1) for the purpose of recovery shall comply with the provisions of R 299.9312. A waste shall be considered hazardous under U.S. procedures if it meets the federal definition of hazardous waste in 40 C.F.R. §261.3 and is subject to either the manifesting requirements of part 3 of these rules, the universal waste management standards of R 299.9228, or the export requirements in the spent lead-acid battery management standards of R 299.9804.~~ **that are considered hazardous under U.S. procedures** **if it meets the federal definition of hazardous waste in 40 C.F.R. §261.3 and is subject to either the manifesting requirements of part 3 of these rules, the universal waste management standards of R 299.9228, or the export requirements in the spent lead-acid battery management standards of R 299.9804.**
- (8) Persons responding to an explosives or munitions emergency in accordance with R 299.9503(2) are not required to comply with the standards in this part.
- (9) **Laboratories owned by an eligible academic entity that chose to be subject to R 299.9313 are not subject to the following requirements:**
 - (a) **R 299.9302 and R 299.9306(2), except as provided in R 299.9313.**
 - (b) **R 299.9205(2), except as provided in R 299.9313.**

R 299.9304 Manifest requirements.

Rule 304. (1) A hazardous waste generator who transports, or offers for transport, a hazardous waste for off-site treatment, storage, or disposal, or a treatment, storage, or disposal facility who offers for transport a rejected hazardous waste load, shall do all of the following:

- (a) Use a manifest which is printed and obtained pursuant to 40 C.F.R. §§262.20 and 262.21.
- (b) Prepare a manifest in accordance with 40 C.F.R. §262.27 and the instructions in the appendix to 40 C.F.R. part 262 before transporting the waste offsite.
- (c) Use a transporter or be a transporter, if a generator transports his or her own hazardous waste, who is registered and permitted pursuant to Act 138 pursuant to part 4 of these rules.
- (2) The generator shall do all of the following with respect to the manifest:
 - (a) Retain 1 copy pursuant to R 299.9307(3).
 - (b) ~~Submit 1 legible copy to the director or his or her designee, which shall be postmarked not later than 10 days after the month in which shipment was made.~~ **Provide the transporter with the remaining copies of the manifest except as otherwise specified in 40 C.F.R. §262.23(c), (d), and (e).**
 - (c) For all out-of-state shipments, if the designated facility fails to provide a legible and timely copy of the **completed** manifest to the director or his or her designee, then the generator shall provide the copy to the director or his or her designee upon request.
 - (d) **For rejected shipments of hazardous waste or container residues contained in non-empty containers that are returned to the generator, comply with the requirements of 40 C.F.R. §262.23(f).**

(3) The requirements of this rule do not apply to hazardous waste that is produced by a generator of more than 100 kilograms, but less than 1,000 kilograms, in a calendar month if both of the following requirements are met:

(a) The waste is reclaimed under a contractual agreement pursuant to which the type of waste and frequency of shipments are specified in the agreement and the vehicle used to transport the waste to the recycling facility and to deliver the regenerated material back to the generator is owned and operated by the reclaimer of the waste.

(b) The generator maintains a copy of the reclamation agreement in his or her files for a period of not less than 3 years after termination or expiration of the agreement.

(4) A hazardous waste generator who authorizes a transporter to commingle his or her hazardous waste pursuant to R 299.9405(2) or (3) shall add the letters "CS" to the end of the hazardous waste number or numbers used on the manifest, as specified in R 299.9405(2)(f), or the letters "CD" to the end of the hazardous waste number or numbers used on the manifest, as specified in R 299.9405(3)(f).

(5) The requirements of this rule and R 299.9305(1)(d) do not apply to the transport of hazardous waste shipments on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such property is contiguous property divided by a public or private right-of-way. Notwithstanding R 299.9401, the generator or transporter shall comply with the requirements for transporters ~~set forth in~~ R 299.9410 in the event of a discharge of hazardous waste on a public or private right-of-way.

(6) The provisions of 40 C.F.R. §§262.20, 262.21, **262.23(c) to (f)**, and 262.27 and the appendix to part 262 are adopted by reference in R 299.11003. For the purposes of these adoptions, the words "site identification number" shall replace the words "EPA identification number," the term "R 299.9207" shall replace the term "40 CFR 261.7," and the term "264.72" shall replace "265.72."

R 299.9306 Accumulation time.

Rule 306. (1) Except as provided in subrules (4), (5), (6), (7), (8), (9), and (10) of this rule, a generator may accumulate hazardous waste on site for 90 days or less without ~~a construction permit or~~ an operating license if he or she complies with all of the following requirements:

(a) The waste is managed pursuant to 1 or more of the following methods:

(i) The waste is placed in containers, the generator complies with 40 C.F.R. part 265, subparts I, AA, BB, and CC, the generator complies with the containment requirements of 40 C.F.R. §264.175, and the generator documents the inspections required pursuant to 40 C.F.R. §265.174. The generator shall maintain the inspection records on site for a period of not less than 3 years from the date of the inspection. The period of retention shall be extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the director. If the generator is unable to comply with 40 C.F.R. §265.176 or the authority having jurisdiction determines that an alternative to the requirements of 40 C.F.R. §265.176 is more protective of human health and the environment, then compliance with 40 C.F.R. §265.176 is considered achieved by meeting the requirements of the fire prevention code and its rules. A copy of an approval letter indicating that the containers are stored in compliance with the fire prevention code and signed by the authority having jurisdiction shall be maintained at the generator's site.

(ii) The waste is placed in tanks, the generator complies with 40 C.F.R. part 265, subparts J, AA, BB, and CC, except for §§265.197(c) and 265.200, and the generator complies with R 299.9615, except for R 299.9615(1). For the purposes of this rule, the references in R 299.9615 to 40 C.F.R. part 264 shall be replaced by references to 40 C.F.R. part 265.

(iii) The waste is placed on drip pads, the generator complies with 40 C.F.R. part 265, subpart W, and the generator maintains the following records at the facility:

(A) A description of the procedures that shall be followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days.

(B) Documentation of each waste removal, including the quantity of waste that is removed from the drip pad and the sump or collection system and the date and time of removal.

(b) The date upon which each period of accumulation begins and the hazardous waste number of the waste are clearly marked and visible for inspection on each container.

(c) While being accumulated on site, each container and tank is labeled with the words "Hazardous Waste."

(d) The generator complies with the requirements for owners or operators in 40 C.F.R. part 265, subparts C and D, and 40 C.F.R. §265.16 and 40 C.F.R. **part** §268-7(a)(5). If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the generator has knowledge that a spill has reached surface water or groundwater, then the generator shall immediately notify the department's pollution emergency alerting system - telephone number 800-292-4706. The notification shall include all of the following information:

- (i) The name and telephone number of the person who is reporting the incident.
- (ii) The name, address, telephone number, and site identification number of the generator.
- (iii) The date, time, and type of incident.
- (iv) The name and quantity of the material or materials involved and released.
- (v) The extent of injuries, if any.
- (vi) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.
- (vii) An assessment of actual or potential hazards to human health or the environment.
- (viii) The immediate response action taken.
- (e) The area where waste is accumulated is protected, as appropriate for the type of waste being stored, from weather, fire, physical damage, and vandals.
- (f) Hazardous waste accumulation is conducted so that hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.
- (g) The closure standards of 40 C.F.R. §§265.111 and 265.114.

(2) A generator may, without ~~a construction permit~~ or an operating license issued pursuant to part 111 of the act and without complying with subrule (1) of this rule, accumulate as much as 55 gallons of hazardous waste or 1 quart of an acute hazardous waste that is identified in table 203a, ~~204a~~, 204b, or 205a, or a severely toxic hazardous waste that is identified in table 202 in containers at or near any point of generation where wastes initially accumulate and which is under the control of the operator of the process that generates the waste if he or she complies with 40 C.F.R. §§265.171, 265.172, and 265.173 and marks his or her containers with the hazardous waste number of the waste and the words "Hazardous Waste." A generator may substitute the chemical name for the hazardous waste number of the waste on his or her containers at or near the point of generation to comply with this subrule. A generator who accumulates hazardous waste, an acute hazardous waste that is listed in table 203a, ~~204a~~, 204b, or 205a, or a severely toxic hazardous waste that is listed in table 202 in excess of the amounts listed in this subrule at or near any point of generation shall, with respect to that amount of excess waste, comply, within 3 days, with the requirements of this subrule or other applicable provisions of this part. During the 3-day period, the generator shall continue to comply with the requirements of this rule. The

generator shall mark the container that holds the excess accumulation of hazardous waste with the date that the excess amount began accumulating and the hazardous waste number of the waste.

(3) A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of parts 5, 6, and 7 of these rules, unless the generator has been granted an extension of the time period or except as provided in subrules (4), (5), (6), (7), (8), (9), and (10) of this rule. An extension of up to 30 days may be granted by the director, or his or her designee, if hazardous wastes must remain on site for more than 90 days due to unforeseen, temporary, and uncontrollable circumstances.

(4) A generator who generates more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste in a calendar month and who does not generate or accumulate acute hazardous waste or severely toxic hazardous waste that exceeds the volumes specified in R 299.9205(1)(b) or (c) may accumulate hazardous waste on site for 180 days or less without a ~~construction permit~~ or an operating license or without being an existing facility pursuant to R 299.9502 if all of the following provisions are complied with:

- (a) The quantity of waste accumulated on site does not exceed 6,000 kilograms.
- (b) The generator does either of the following:
 - (i) Places the waste in containers and complies with 40 C.F.R. part 265, subpart I, except for §§265.176 and 265.178, and, if the quantity of waste accumulated on site exceeds 1,000 kilograms, complies with the containment requirements of 40 C.F.R. §264.175.
 - (ii) Places the waste in tanks and complies with 40 C.F.R. §265.201 and, if the quantity of waste accumulated on site exceeds 1,000 kilograms, complies with the containment requirements of 40 C.F.R. §§265.191, 265.192, 265.193, and 265.196.
 - (iii) Places the waste on a drip pad and complies with 40 C.F.R. part 265, subpart W, and maintains the following records on site:
 - (A) A description of the procedures that will be followed to ensure that all of the wastes are removed from the drip pad and associated collection system at least once every 90 days.
 - (B) Documentation of each waste removal, including the quantity of waste that is removed from the drip pad and the sump or collection system and the date and time of removal.
 - (C) The generator ensures that the date upon which each period of accumulation begins and the hazardous waste number of the waste are clearly marked and visible for inspection on each container.
 - (d) The generator on each container ensures that while being accumulated on site, each container and tank is marked clearly with the words "Hazardous Waste."
 - (e) The generator complies with 40 C.F.R. part 265, subpart C, and 40 C.F.R. **part** §268.7(a)(5).
 - (f) The generator ensures that, at all times, there is at least ~~one~~1 employee either on the premises or on call who is responsible for coordinating all emergency response measures specified in subdivision (i) of this subrule. The employee is the emergency coordinator and, if on call, shall be available to respond to an emergency by reaching the facility within a short period of time.
 - (g) The generator posts, next to the telephone, the name and telephone number of the emergency coordinator; the location of fire extinguishers and spill control material and, if present, fire alarm; and the telephone number of the fire department, unless the facility has a direct alarm.
 - (h) The generator ensures that all employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.
 - (i) The emergency coordinator or his or her designee responds to any emergencies that arise. An emergency coordinator shall respond as follows:
 - (i) If there is a fire, call the fire department or attempt to extinguish the fire using a fire extinguisher.

(ii) If there is a spill, contain the flow of hazardous waste to the extent possible and, as soon as is practicable, clean up the hazardous waste and any contaminated materials or soils.

(iii) If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment or if the generator has knowledge that a spill has reached surface water or groundwater, then the generator shall immediately notify the department's pollution emergency alerting system - telephone number 800-292-4706. For releases that could threaten human health outside the individual site of generation and spills that have reached surface waters, the generator shall also immediately notify the national response center at its 24-hour, toll-free number - 800-424-8802. The notifications shall include all of the following information:

- (A) The name and telephone number of the person who is reporting the incident.
- (B) The name, address, telephone number, and site identification number of the generator.
- (C) The date, time, and type of incident.
- (D) The name and quantity of the material or materials involved and released.
- (E) The extent of injuries, if any.
- (F) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.
- (G) An assessment of actual or potential hazards to human health or the environment.
- (H) The immediate response action taken.
- (j) The generator ensures that the area where the waste is accumulated is protected from weather, fire, physical damage, and vandals.
- (k) The generator ensures that hazardous waste accumulation is conducted so hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.

(5) A generator who generates more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste in a calendar month and who must transport his or her waste, or offer his or her waste for transportation, over a distance of 200 miles or more for off-site treatment, storage, or disposal may accumulate hazardous waste on site for 270 days or less without ~~a construction permit~~ or an operating license or without being an existing facility pursuant to R 299.9502, if he or she complies with subrule (4) of this rule.

(6) A generator who generates more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste in a calendar month and who accumulates hazardous waste in quantities of more than 6,000 kilograms or accumulates hazardous waste for more than 180 days, or for more than 270 days if he or she must transport the waste, or offer the waste for transportation, over a distance of 200 miles or more, is an operator of a storage facility and is subject to the requirements of parts 5 and 6 of these rules, unless he or she has been granted an extension to the 180-day or, if applicable, 270-day period. The director or his or her designee may grant an extension if hazardous waste must remain on site for more than 180 days or 270 days, if applicable, due to unforeseen, temporary, and uncontrollable circumstances. The director or his or her designee may grant an extension of up to 30 days on a case-by-case basis.

(7) A generator who generates 1,000 kilograms or more of hazardous waste in a calendar month and who also generates wastewater treatment sludges from electroplating operations that meet the listing description for F006 waste, may accumulate F006 on site for more than 90 days, but not more than 180 days, without ~~a construction permit~~ or an operating license or without being an existing facility pursuant to R 299.9502, if he or she complies with all of the following requirements:

- (a) The generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants, or contaminants entering the F006 waste or are otherwise released to the environment before its recycling.

- (b) The F006 waste is legitimately recycled through metals recovery.
- (c) The quantity of F006 waste on site does not exceed 20,000 kilograms at any one time.
- (d) The F006 waste is managed pursuant to either of the following requirements:
 - (i) The F006 waste is placed in containers and the generator complies with the applicable requirements of 40 C.F.R. part 265, subparts I, AA, BB, and CC, the containment requirements of 40 C.F.R. §264.175, and the generator documents the inspections required pursuant to 40 C.F.R. §265.174. The generator shall maintain the inspection records on site for a period of not less than 3 years from the date of the inspection. The period of retention shall be extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the director.
 - (ii) The F006 waste is placed in tanks and the generator complies with the applicable requirements of 40 C.F.R. part 265, subparts J, AA, BB, and CC, except for 40 C.F.R. §265.197(c) and 265.200, and the generator complies with R 299.9615, except for R 299.9615(1). For the purposes of this rule, the references in R 299.9615 to "40 C.F.R. part 264" shall be replaced by references to "40 C.F.R. part 265."
- (e) The date upon which each period of accumulation begins and the hazardous waste number of the waste are clearly marked and visible for inspection on each container.
- (f) While being accumulated on site, each container and tank is labeled or marked clearly with the words "hazardous waste."
- (g) The generator complies with the requirements for owners or operators in 40 C.F.R. part 265, subparts C and D, 40 C.F.R. §265.16, and 40 C.F.R. §268.7(a)(5). If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the generator has knowledge that a spill has reached surface water or groundwater, then the generator shall immediately notify the department's pollution emergency alerting system - telephone number 800-292-4706. The notification shall include all of the following information:
 - (i) The name and telephone number of the person who is reporting the incident.
 - (ii) The name, address, telephone number, and site identification number of the generator.
 - (iii) The date, time, and type of incident.
 - (iv) The name and quantity of the material or materials involved and released.
 - (v) The extent of injuries, if any.
 - (vi) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.
 - (vii) An assessment of actual or potential hazards to human health or the environment.
 - (viii) The immediate response action taken.
- (h) The area where waste is accumulated is protected, as appropriate for the type of waste being stored, from weather, fire, physical damage, and vandals.
 - (i) Hazardous waste accumulation is conducted so that hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.
 - (j) The closure standards of 40 C.F.R. §§265.111 and 265.114.
- (8) A generator who generates 1,000 kilograms or more of hazardous waste in a calendar month and who also generates wastewater treatment sludges from electroplating operations that meet the listing description for F006 waste, and who must transport this waste or offer this waste for transportation over a distance of 200 miles or more for off-site metals recovery may accumulate F006 on site for more than 90 days, but not more than 270 days, without ~~a construction permit~~ or an operating license or without being an existing facility pursuant to R 299.9502, if he or she complies with subrule (7) of this rule.
- (9) A generator who accumulates F006 waste pursuant to subrule (7) of this rule and who accumulates F006 for more than 180 days, or who accumulates more than 20,000 kilograms of F006 on site, is an operator of a storage facility and is subject to parts 5, 6, and 7 of these rules unless the generator has

been granted an extension to the 180-day period or an exception to the 20,000-kilogram accumulation limit. Such an extension or exception may be granted by the director, or his or her designee, if F006 waste must remain on site for longer than 180 days or if more than 20,000 kilograms of F006 waste must remain on site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the director, or the director's designee, on a case-by-case basis.

(10) A generator who accumulates F006 waste pursuant to subrule (8) of this rule and who accumulates F006 on site for more than 270 days, or who accumulates more than 20,000 kilograms of F006 on site, is an operator of a storage facility and is subject to parts 5, 6, and 7 of these rules unless the generator has been granted an extension to the 270-day period or an exception to the 20,000-kilogram accumulation limit. Such an extension or exception may be granted by the director, or his or her designee, if F006 waste must remain on site for longer than 270 days or if more than 20,000 kilograms of F006 waste must remain on site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the director, or his or her designee, on a case-by-case basis.

(11) A generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that same shipment back as a rejected load or residue in accordance with the manifest discrepancy provisions of R 299.9608 may accumulate the returned waste onsite in accordance with subrules (1) and (3) or (4), (5), and (6) of this rule, depending on the amount of hazardous waste onsite in that calendar month. Upon receipt of the returned shipment, the generator shall comply with the provisions of 40 C.F.R. §262.34(m)(1) and (2).

(12) The provisions of 40 C.F.R. §§262.34(m)(1) and (2), 264.175, and 265.16, ~~and~~ part 265, subparts C, D, I, and J, **and part 268** are adopted by reference in R 299.11003. For purposes of the adoption of 40 C.F.R. §265.56(j), the word "director" shall replace the words "regional administrator."

R 299.9307 Generator recordkeeping.

Rule 307. (1) A generator shall keep records of any test results, waste analyses, or other determinations made pursuant to R 299.9302 for not less than 3 years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

(2) A generator who is requested by the director to submit evaluation results shall provide the required information within 30 days after receipt of the request. The records shall include all of the following information:

- (a) The type of waste and the source or process from which it was produced.
- (b) The chemical composition of the waste and the anticipated fluctuations in its chemical composition.
- (c) If tests were conducted in the evaluation, all of the following information shall be included:
 - (i) The sampling procedure and the reasons for determining that the sample is representative of the waste.
 - (ii) The results of all tests conducted.
 - (iii) The accuracy and precision of any tests conducted.

(3) A generator shall keep a copy of each manifest signed pursuant to R 299.9304(2) for 3 years or until he or she receives a signed copy from the designated facility which received the waste. This signed copy shall be retained as a record for not less than 3 years from the date the waste was accepted by the initial transporter.

(4) A generator shall keep a copy of the data submitted under R 299.9308(1), exception report, or other report required by the director, or his or her designee, for a period of not less than 3 years from the due date of the report.

(5) A generator shall keep the documentation required pursuant to R 299.9503(1)(i)(ix) for not less than 3 years from the date that the waste was treated.

(6) A generator shall keep the documentation required pursuant to R 299.9220 for not less than 3 years.

(67) The periods of retention referred to in this rule are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the director.

(78) A generator who generates more than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month is exempt from the recordkeeping requirements of subrule (4) of this rule.

R 299.9308 Generator reporting.

Rule 308. (1) A generator of more than 1,000 kilograms of hazardous waste shall provide to the director or the director's designee the data necessary for the department to prepare and submit Michigan's hazardous waste report as required to the EPA. The data shall be submitted ~~on a form and in a format specified by the director or the director's designee. The data shall be acquired from manifests as required in Parts 3 and 6 of the rules,~~ the information required in subrule (2) of this rule **and Parts 3 and 6 of the rules,** and/or other reporting mechanisms used by the director to obtain the information specified in 40 C.F.R. §262.41(a)(1) to (8), and by the EPA as part of a federal information collection request published in conjunction with 40 C.F.R. §262.41(a).

(2) Any generator of more than 1,000 kilograms who treats, stores, or disposes of hazardous waste on-site shall submit data covering those wastes in accordance with parts 5 and 6 of these rules. Reporting for exports of hazardous waste is not required on the biennial report form. A separate annual report requirement is set forth in the provisions of 40 C.F.R. §262.56.

(3) A generator of more than 1,000 kilograms of hazardous waste **or more than 1 kilogram of an acute hazardous waste that is identified in table 203a, 204b, or 205a, or a severely toxic hazardous waste that is identified in table 202** in a calendar month who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter shall do both of the following:

(a) Contact the transporter or the owner or operator of the designated facility to determine the status of the hazardous waste.

(b) If the generator has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter, then the generator shall submit an exception report to the director, or his or her designee, and the EPA regional administrator for the region in which the generator is located. The exception report shall include both of the following:

(i) A legible copy of the manifest for which the generator does not have confirmation of delivery.

(ii) A cover letter signed by the generator, or the generator's authorized representative, explaining the efforts taken to locate the hazardous waste and the results of those efforts.

(4) A generator shall furnish periodic reports of hazardous waste generated, stored, transferred, treated, disposed of, or transported for treatment, storage, or disposal required by the director or his or her designee.

(5) A generator of more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste in a calendar month who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter shall submit a legible copy of the manifest, with some indication that the generator has not

received confirmation of delivery, to the director or his or her designee and the regional administrator for the region in which the generator is located.

(6) For rejected shipments of hazardous waste, the time frames referenced in subrules (3) and (5) of this rule begin the date the waste was accepted by the initial transporter forwarding the hazardous waste shipment from the designated facility to the alternate facility.

(67) A generator of more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste in a calendar month is subject to the following requirements:

(a) The provisions of 40 C.F.R. §262.40(a), (c), and (d).

(b) Additional reporting requirements pursuant to the provisions of 40 C.F.R. §262.43.

R 299.9309 Exports of hazardous waste.

Rule 309. (1) Any person who exports hazardous waste to a foreign country shall comply with 40 C.F.R. part 262, subpart E, except 40 C.F.R. §§262.54 and 262.55.

(2) A primary exporter shall comply with the manifest requirements of R 299.9304, except as follows:

(a) In place of the name, site address, and site identification number of the designated permitted facility, the primary exporter shall enter the name and site address of the consignee.

(b) In place of the name, site address, and site identification number of the permitted alternate facility, the primary exporter may enter the name and site address of any alternative consignee.

(c) In the international shipments block, the primary exporter shall check the export box and enter the point of exit, both city and state, from the United States.

(d) The following statement shall be added to the end of the first sentence of the certification set forth on the manifest form: "and conforms to the terms of the attached EPA acknowledgement of consent."

(e) The primary exporter shall require the consignee to confirm, in writing, the delivery of the hazardous waste to that facility and to describe any significant discrepancies, as defined in R 299.9608, between the manifest and the shipment. A copy of the manifest signed by such facility may be used to confirm delivery of the hazardous waste.

(f) In place of the requirements of R 299.9304(1)(e), **with respect to where** a shipment **that** cannot be delivered for any reason to the designated or alternate consignee, the primary exporter shall do either of the following:

(i) Renotify EPA of a change in the conditions of the original notification to allow shipment to a new consignee pursuant to 40 C.F.R. §262.53(c) and obtain an EPA acknowledgement of consent before delivery.

(ii) Instruct the transporter to return the waste to the primary exporter in the United States or designate another facility within the United States and instruct the transporter to revise the manifest pursuant to the primary exporter's instructions.

(g) The primary exporter shall attach a copy of the EPA acknowledgement of consent to the shipment to the manifest which shall accompany the hazardous waste shipment. For exports by rail or bulk water shipment, the primary exporter shall provide the transporter with an EPA acknowledgement of consent which shall accompany the hazardous waste, but which need not be attached to the manifest, except that for exports by bulk water shipment, the primary exporter shall attach the copy of the EPA acknowledgement of consent to the shipping paper.

(h) The primary exporter shall provide the transporter with an additional copy of the manifest for delivery to the United States customs official at the point the hazardous waste leaves the United States pursuant to 40 C.F.R. §263.20(g)(4).

(3) In place of the requirements of R 299.9308(3), a primary exporter shall file an exception report with the **Office of Enforcement and Compliance Assurance, Office of Federal Activities,**

International Compliance Assurance Division (2254A), EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, administrator and director if any of the following occurs:

(a) The exporter has not received a copy of the manifest signed by the transporter stating the date and place of departure from the United States within 45 days from the date the manifest was accepted by the initial transporter.

(b) Within 90 days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the consignee that the hazardous waste was received.

(c) The waste is returned to the United States.

(4) The provisions of 40 C.F.R. part 262, subpart E, except 40 C.F.R. §§262.54 and 262.55, are adopted by reference in R 299.11003.

R 299.9312 Transfrontier shipments of hazardous waste for recovery within the Organization for Economic Cooperation and Development.

Rule 312. (1) Persons who import or export wastes that are considered hazardous under the U.S. national procedures and that are destined for recovery operations in a country listed pursuant to the provisions of 40 C.F.R. §262.58(a)(1) shall comply with the provisions of 40 C.F.R. part 262, subpart H, except §262.80. A waste shall be considered hazardous under the U.S. national procedures if it meets the federal definition of hazardous waste in 40 C.F.R. §261.3 and it is subject to either the manifesting requirements of part 3 of these rules, ~~or the universal waste provisions of R 299.9228,~~ **or the export requirements in the spent lead-acid battery management standards of R 299.9804.**

(2) Any person subject to this rule, including a notifier, consignee, or recovery facility operator, who mixes 2 or more hazardous or solid wastes or otherwise subjects 2 or more hazardous or solid wastes to physical or chemical transformation operations, and thereby creates a new hazardous waste, shall comply with the following requirements:

(a) The person shall be considered the generator of the waste and comply with the requirements of part 3 of these rules.

(b) The applicable notifier requirements of 40 C.F.R. part 262, subpart H.

(3) The provisions of 40 C.F.R. part 262, subpart H, except §262.80, are adopted by reference in R 299.11003.

R 299.9313 Academic laboratories; alternate generator requirements.

(1) This rule provides alternative requirements for hazardous waste determinations and accumulation of hazardous waste in laboratories owned by eligible academic entities.

(2) Persons with laboratories owned by eligible academic entities may elect to comply with the requirements of 40 C.F.R. part 262, subpart K, except §§262.201 and 262.202, in lieu of the requirements of R 299.9205 and R 299.9306, as applicable.

(3) The provisions of 40 C.F.R. part 262, subpart K, except §§262.201 and 262.202 and the references to performance track members, are adopted by reference in R 299.11003. For the purposes of this adoption, the word "director" shall replace "EPA regional administrator", the words "site identification number" shall replace "EPA identification number", the words "operating license" shall replace "RCRA Part B permit", the words "hazardous waste numbers" shall replace "hazardous waste codes", the words "Michigan site identification form, form EQP5150" shall replace "RCRA Subtitle C Site Identification Form (EPA Form 8700-12)", the reference "R 299.9101(x)" shall replace "§260.11", the reference "R 299.9212" shall replace "40 CFR part 261, subpart C", the references "R 299.9213 and R 299.9214" shall replace "40 CFR part 261, subpart D", the reference "R 299.9202" shall replace "§261.2", the reference "R

299.9203” shall replace “§261.3”, the reference “R 299.9205” shall replace references to “§261.5”, the reference “R 299.9214” shall replace “§261.33(e)”, the reference “Part 3 of the rules” shall replace “40 CFR part 262”, the reference “R 299.9302” shall replace “§262.11”, and “R 299.9306” shall replace references to “§262.34.”

PART 4. TRANSPORTERS OF HAZARDOUS WASTE

R 299.9405 Consolidation and commingling of hazardous waste.

Rule 405. (1) A transporter consolidating containers of hazardous waste shall ensure that the original manifest for each hazardous waste container in the consolidated shipment accompanies the shipment.

(2) A transporter commingling hazardous wastes of the same DOT shipping description where the DOT hazard class and DOT packing group remain the same shall comply with all of the following requirements:

- (a) The provisions of 49 C.F.R. part 173, as applicable.
- (b) Conduct commingling, unless performed at the generator location at the time when the load is first received by the transporter, in a secondarily contained area that is sufficiently impervious to prevent any hazardous waste or hazardous waste constituent released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- (c) Ensure that commingled wastes are destined for a single disposal facility.
- (d) Ensure that incompatible wastes are not commingled.
- (e) Ensure that commingled wastes do not undergo chemical or thermal change or treatment, and ensure that the resultant waste retains both the physical and chemical characteristics similar to the individual wastes before they were commingled.
- (f) Ensure that the generator authorizes the commingling in accordance with R 299.9304(4) and adds the term "CS" to the end of the hazardous waste number or numbers used on the manifest, denoting the commingling activity.
- (g) For bulk rail or bulk water shipments, ensure that where the commingling of wastes results in the original shipment being transported to the designated facility by more than 1 vehicle the extra copies of the manifest as provided by the generator in accordance with the provisions of R 299.9304(2)(f) and (g) accompany each of the vehicles and that the transporter prepares a DOT-approved shipping paper and attaches the shipping paper to the top of the manifest or manifests. The shipping paper shall reflect the differences from the original shipment in terms of quantity, count, and DOT-approved packaging.
- (h) Ensure that where the commingling of wastes results in changes to the quantity, count, or DOT-approved packaging on the generator manifest or manifests, the transporter prepares a DOT-approved shipping paper and attaches the shipping paper to the top of the manifest or manifests. The shipping paper shall reflect the differences from the original shipment in terms of quantity, count, and DOT-approved packaging.
- (i) Ensure that, where a commingled load is rejected by the designated facility, all generators contributing to the commingled load are contacted to designate an alternate facility and that the rejected commingled wastes are not returned to any single generator.

(3) A transporter commingling compatible hazardous wastes of different DOT shipping descriptions where the DOT hazard class or DOT packing group differs in a manner that alters the components of the waste description on the generator's original manifest shall comply with all of the following requirements:

- (a) Comply with the requirements of subrule (2)(a) to (e) of this rule.
- (b) For new activity, prior to the activity beginning, provide notification to the department. Within 30 days of changes in information included in the original notification a subsequent notification is

required. The notification shall include all of the following information:

- (i) The transporter name and site identification number.
- (ii) The transporter mailing address.
- (iii) The transporter telephone number.
- (iv) The owner of the facility.
- (v) If other than the generator site, the location of the facility and the telephone number where commingling activity is performed.
- (vi) The description of the commingling activity performed at each facility location.
- (c) Prepare a new manifest as a generator in accordance with part 3 of these rules.
- (d) On the new manifest, describe the commingled load by adding the term "CD" to the end of the hazardous waste number or numbers used on the manifest.
- (e) Ensure that the transporter-initiated manifest and the generator manifests accompany the shipment to the designated facility. The transporter-initiated manifest shall satisfy DOT shipping paper requirements and be segregated from the generator manifests. All generator and transporter manifests shall be signed by an authorized representative of the designated facility upon receipt of the waste.
- (f) Ensure that the generator adds the term "CD" to the end of the hazardous waste number or numbers used on the manifest, prepared as required in subdivision (c) of this subrule.
- (g) Comply with part 3 of these rules relating to the wastes, except for R 299.9307(4) and R 299.9308(1) and (2) and the accumulation time limits specified in R 299.9404(1)(b).
- (h) Ensure that, where a commingled load is rejected by the designated facility, all other generators contributing to the load are contacted to jointly, with the transporter, designate an alternate facility and that the rejected commingled wastes are not returned to any single generator. The transporter, under this part, shares generator responsibility.

R 299.9409 Transporter manifest; ~~and~~ recordkeeping requirements.

Rule 409. (1) Hazardous waste transporters shall only transport hazardous waste using a manifest. Hazardous waste transporters shall comply with 40 C.F.R. part 263, subpart B, regarding the manifest system, compliance with the manifest, and recordkeeping.

(2) If the hazardous waste cannot be delivered pursuant to the manifest and 40 C.F.R. §263.21(a), and if the transporter revises the manifest pursuant to 40 C.F.R. §263.21(b)(1), the transporter shall legibly note on the manifest the name and phone number of the person representing the generator from whom instructions have been obtained.

(3) A transporter whose manifested shipment results in a significant manifest discrepancy, as specified in R 299.9608, and a total or partial rejected shipment shall comply with 40 C.F.R. §263.21(b)(2). Before accepting for transportation the rejected portion of the original shipment, the transporter shall confirm that the generator has prepared a new manifest pursuant to part 3 of these rules.

(4) A transporter shall retain all records, logs, or documents required pursuant to this part for a period of 3 years **and make the records, logs, and documents readily available for inspection by the director or his or her designee, upon request.** The retention period shall be extended during the course of any unresolved enforcement action regarding the regulated activity or as otherwise required by the department.

(5) The provisions of 40 C.F.R. part 263, subpart B, are adopted by reference in R 299.11003.

PART 5. ~~CONSTRUCTION PERMITS AND~~ OPERATING LICENSES

R 299.9501 ~~Construction permits~~ **Operating licenses for new facilities; and expansion, enlargement, or alteration of existing facilities;** applicability.

Rule 501. (1) Except as otherwise specified in R 299.9503, R 299.9524, and subrules (2), (3), and (4) of this rule, issuance of an **operating license** ~~construction permit~~ by the director shall occur before any of the following begins:

- (a) The physical construction of a new treatment, storage, or disposal facility.
- (b) The expansion or enlargement beyond the previously authorized design capacity or area of a treatment, storage, or disposal facility.
- (c) The alteration of the method of treatment or disposal previously authorized at a treatment or disposal facility to a different method of treatment or disposal. A change in only the types and quantity of waste treated, stored, or disposed of, without an expansion, enlargement, or alteration of the facility, shall not require a **new operating license** ~~construction permit~~. Such a change may require modification of the operating license as set forth in this part or, for facilities operating without a license in accordance with the provisions of R 299.9502(3), (4), or (5), submittal by the owner or operator of a revised part A application before such a change.

(2) Each method of treatment or disposal requires a separate **operating license** ~~construction permit~~. Either or both of the following may be authorized under an **operating license** ~~construction permit~~ for treatment or disposal:

- (a) Storage associated with such treatment or disposal.
- (b) Wastewater treatment facilities treating wastewater generated from the treatment or disposal of a hazardous waste.

(3) If the director finds an imminent and substantial endangerment to human health or the environment, the director may issue a temporary emergency operating license to a nonlicensed facility to allow treatment, storage, or disposal of hazardous waste or to a licensed facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective operating license. These activities shall not be subject to the **operating license** ~~construction permit~~ requirements of part 111 of the act and these rules **for new facilities or the expansion, enlargement, or alteration of existing facilities**. An emergency operating license may be oral or written. If oral, it shall be followed in 5 days by a written emergency operating license. The emergency operating license may be terminated by the director at any time if he or she determines that termination is appropriate to protect human health and the environment. An emergency operating license shall comply with all of the following requirements:

- (a) It shall not exceed 90 days in duration.
- (b) It shall clearly specify the hazardous wastes to be received and the manner and location of their treatment, storage, or disposal.

(c) It shall be accompanied by a public notice published in accordance with R 299.9513, ~~which~~ **including** all of the following information:

- (i) Name and address of the office granting the emergency authorization.
- (ii) Name and location of the licensed facility.
- (iii) A brief description of the wastes involved.
- (iv) A brief description of the action authorized and the reasons for authorizing it.
- (v) Duration of the emergency operating license.
- (d) It shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this part and part 6. An emergency operating license shall not be subject to the licensee fees specified by R 299.9510. The licensee shall pay for the cost of all public notices required by these rules for the emergency operating license.

(4) The director may issue a temporary operating license to any person who proposes to utilize, for research purposes, an innovative and experimental hazardous waste treatment technology or process for which standards have not been promulgated under these rules. Such licensed activities shall be exempt from the ~~construction permit~~ requirements of part 111 of the act and these rules **for new facilities or the expansion, enlargement, or alteration of existing facilities**, and, for the purpose of expediting the review and issuance of operating licenses under this subrule, the director may, consistent with the protection of human health and the environment, modify or waive the license application requirements of R 299.9508, except that the director shall not waive rules regarding financial responsibility, including insurance, or waive the public participation process specified in R 299.9511. A temporary operating license issued by the director under this subrule shall be in compliance with all of the following provisions:

(a) Provide for the construction of facilities, as necessary, and for the operation of the facilities for not more than 1 year, unless renewed, except that any operating license issued under this subrule shall not be renewed more than 3 times and each renewal shall be for a period of not more than 1 year.

(b) Provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the director determines necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment.

(c) Require compliance with the requirements of part 6 of these rules for any hazardous waste storage, and include such other requirements as the director deems necessary to protect human health and the environment, such as requirements regarding any of the following:

- (i) Monitoring.
- (ii) Operation.
- (iii) Insurance or bonding.
- (iv) Financial responsibility.
- (v) Closure.
- (vi) Remedial action.

(d) Include such requirements as the director deems necessary regarding testing and the providing of information to the director with respect to the operation of the facility.

(5) A temporary operating license issued under subrule (3) or (4) of this rule may be terminated by the director at any time if he or she determines that termination is necessary to protect human health or the environment.

R 299.9502 Operating licenses **for existing facilities**; applicability and general application requirements.

Rule 502. (1) Part 111 of the act requires an operating license for the treatment, storage, and disposal of any hazardous waste, except for those facilities identified in subrules (3), (4), and (5) of this rule and except for ~~trial burns or operations~~ as provided in R 299.96283, as identified or listed in parts 2 and 8 of these rules. Requirements for remedial action plans, special forms of operating licenses, are specified in R 299.9524. The terms "treatment," "storage," "disposal," and "hazardous waste" are defined in part 1 of these rules. Owners or operators of hazardous waste management units shall have an operating license during the active life of the unit, including the closure period. Owners or operators of surface impoundments, landfills, land treatment units, and waste pile units that received wastes after July 26, 1982, or that certified closure after January 26, 1983, shall have an operating license for the postclosure period, unless they demonstrate closure by removal pursuant to subrules (8) and (9) of this rule or they obtain an enforceable document in place of an operating license for the postclosure period, as provided for in subrule (12) of this rule. If an operating license for the postclosure period is required, then the

license shall incorporate the applicable groundwater monitoring, corrective action, and postclosure care requirements of part 6 of these rules. The denial of an operating license for the continued operation of a hazardous waste management facility or unit does not affect the requirement of obtaining a postclosure operating license. Owners or operators of certain facilities require operating licenses that are issued pursuant to part 111 of the act and, in addition, permits that are issued pursuant to other programs for certain aspects of the facility operation. Operating licenses that are issued pursuant to part 111 of the act are required for all of the following:

- (a) Injection wells that dispose of hazardous waste, except as provided by R 299.9503(3)(a).
- (b) The treatment, storage, or disposal of hazardous waste at facilities that require a permit pursuant to part 31 of the act, except as provided by R 299.9503(3)(b).

- (c) Barges or vessels that dispose of hazardous waste by ocean disposal and onshore hazardous waste treatment or storage facilities that are associated with an ocean disposal operation.

(2) An owner or operator of a facility that is licensed pursuant to part 111 of the act on the effective date of these rules may continue to operate under the existing license if all of the following conditions are met:

- (a) The facility is being operated in compliance with its existing operating license, the applicable statutory and regulatory requirements promulgated under part 111 of the act after license issuance, as required pursuant to R 299.9516, and all other applicable environmental statutes.

- (b) The facility is either of the following:

- (i) A facility which qualifies for interim status pursuant to 40 C.F.R. §270.70 and which is in compliance with all of the following provisions:

- (A) Has filed a part A application pursuant to 40 C.F.R. §270.10(e).

- (B) Has amended the part A application, as necessary, pursuant to 40 C.F.R. §270.10(g).

- (C) Has not had interim status terminated pursuant to 40 C.F.R. §270.73.

- (D) Has complied with the applicable provisions of 40 C.F.R. part 265 and §270.71 and the applicable provisions of parts 6 and 8 of these rules.

- (E) Has not made changes to the hazardous waste management facility during interim status that amount to reconstruction of the facility. Reconstruction occurs when the capital investment in the changes to the facility is more than 50% of the capital cost of a comparable entirely new hazardous waste management facility. Changes pursuant to this subparagraph do not include changes made solely for the purpose of complying with the requirements of R 299.9615 for tanks and ancillary equipment. Changes pursuant to this subparagraph do not include changes made solely for the purposes of managing wastes generated from releases that originate within the facility boundary, pursuant to R 299.9503(4)(c).

- (ii) A facility which is permitted pursuant to 40 C.F.R. part 270 and which is in compliance with the permit or license issued.

- (c) The owner or operator submits an application for a new license to the director not less than 180 days before license expiration.

- (d) The owner or operator complies with all applicable requirements of parts 6, 7, and 8 of these rules.

(3) An owner or operator of a storage facility which is in existence on March 30, 1983, and which is subject to the licensing requirements of part 111 of the act solely due to the 1982 amendments to part 111 of the act may continue to operate until such time as the director acts upon the facility's application for an operating license, if all of the following conditions are met:

- (a) The facility is in compliance with subrule (2)(b) of this rule.

- (b) The owner or operator submits a complete operating license application within 180 days after being requested to do so by the director.

- (c) The owner or operator complies with the applicable requirements of parts 6, 7, and 8 of these rules and all applicable environmental statutes.

(4) The owner or operator of a treatment, storage, or disposal facility that is in existence on the effective date of amendments to part 111 of the act or these rules that render the facility subject to the licensing requirements of part 111 of the act may continue to operate until such time as the director acts upon the owner or operator's application for an operating license, if the conditions of subrule (3)(a), (b), and (c) of this rule are met.

(5) An owner or operator of a facility which is in existence on January 1, 1980, and which is subject to the licensing requirements of part 111 of the act, but which has not yet obtained an operating license pursuant to part 111 of the act, may continue to operate until such time as the director acts upon the facility's application for an operating license if the owner or operator meets the conditions of subrule (3)(a), (b), and (c) of this rule.

(6) Allowing continued operation pursuant to subrules (2) to (5) of this rule does not do any of the following:

(a) Reduce the owner or operator's responsibility to dispose of all hazardous waste in a manner that protects the environment and human health.

(b) Eliminate or reduce past, present, or future liability incurred during the operation.

(c) Restrict the ability of state or local governmental agencies to take action to enforce existing laws, statutes, rules, or regulations.

(7) A person who proposes to initiate the operation of any treatment, storage, or disposal facility shall submit, to the director, on forms provided by the director or his or her designee, an operating license application that sets forth the information required by R 299.9508.

(8) Owners or operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination pursuant to 40 C.F.R. part 265 standards shall obtain an operating license for the postclosure period, unless the owners or operators can provide an equivalency demonstration to the director that the closure met the standards for closure by removal or decontamination specified in 40 C.F.R. §§264.228, 264.280(e), or 264.258, respectively. The demonstration shall be made as follows:

(a) If the owner or operator has submitted an operating license application for the postclosure period, the owner or operator may request a determination, based on information contained in the application, that 40 C.F.R. part 264 closure-by-removal standards were met. If the director determines that 40 C.F.R. part 264 standards were met, then he or she shall notify the public of his or her proposed decision, allow for public comment, and reach a final determination according to the procedures in subrule (9) of this rule.

(b) If the owner or operator has not submitted an operating license for the postclosure period, then the owner or operator may petition the director for a determination that an operating license for the postclosure period is not required because the closure was in compliance with the applicable 40 C.F.R. part 264 closure standards. The petition shall include all data which demonstrates that closure by removal or decontamination standards were met or the petition shall demonstrate that the unit closed pursuant to state requirements that met or exceeded the applicable 40 C.F.R. part 264 closure by removal standard. The director shall approve or deny the petition according to the procedures outlined in subrule (9) of this rule.

(9) If a facility owner or operator seeks an equivalency demonstration pursuant to subrule (8) of this rule, the director shall do all of the following:

(a) Provide the public, through a newspaper notice, the opportunity to submit written comments on the information submitted by the owner or operator within 30 days from the date of the notice.

(b) In response to a request, hold a public hearing concerning the equivalence of the 40 C.F.R. part 265 closure to a 40 C.F.R. part 264 closure and give public notice of the hearing not less than 30 days before it occurs.

(c) Determine whether the 40 C.F.R. part 265 closure met the 40 C.F.R. part 264 closure by removal or decontamination requirements within 90 days of receipt of the petition.

(d) If the director finds that the closure did not meet the applicable standards of 40 C.F.R. part 264, then provide the owner or operator with a written statement of the reasons why the closure failed to meet 40 C.F.R. part 264 standards.

(10) If the director determines, pursuant to subrule (9) of this rule, that a closure was not in compliance with the applicable 40 C.F.R. part 264 standards, then the owner or operator may submit additional information in support of an equivalency demonstration within 30 days after receiving a written statement from the director. The director shall review any additional information submitted and make a final determination within 60 days. If the director determines that the facility did not close pursuant to 40 C.F.R. part 264 closure by removal standards, then the facility is subject to operating license requirements for the postclosure period.

(11) Owners or operators of waste military munitions treatment and disposal facilities ~~are authorized to~~ may continue to accept waste munitions if all of the following conditions are met:

(a) The facility was in existence as a hazardous waste facility and already licensed to handle waste military munitions, on the effective date on which the waste munitions became subject to regulation under these rules.

(b) On or before the effective date on which the waste military munitions became subject to regulation under these rules, the licensee submits an operating license modification to remove or amend the license provisions which restrict the receipt of off-site waste munitions.

(c) The licensee submits a complete modification request within 180 days of the effective date on which the waste munitions became subject to regulation under these rules.

(12) At the discretion of the director, an owner or operator may obtain, in place of an operating license for the postclosure period, an enforceable document which satisfies the requirements of R 299.9508(3) and (4), R 299.9612, and R 299.9629. The director, in issuing enforceable documents under this subrule, shall assure a meaningful opportunity for public involvement which, at a minimum, includes public notice and opportunity for public comment when the department becomes involved in a remediation at the facility as a regulatory or enforcement matter, on the proposed preferred remedy and the assumptions upon which the remedy is based, in particular those related to land use and site characterizations, and at the time of a proposed decision that remedial action is complete at the facility. The public notice and public comment requirements of this subrule may be modified if the facility meets either of the following conditions:

(a) If the director determines that even a short delay in the implementation of a remedy would adversely affect human health or the environment, the director may delay compliance with the public notice and public comment requirements of this subrule and implement the remedy immediately. However, the director shall assure involvement of the public at the earliest opportunity, and, in all cases, upon making the decision that additional remedial action is not needed at the facility.

(b) The director may allow a remediation initiated before October 22, 1998 to substitute for corrective action required under a postclosure license even if the public involvement requirements of this subrule have not been met so long as the director assures that notice and comment on the decision that no further remediation is necessary to protect human health and the environment takes place at the earliest reasonable opportunity after October 22, 1998.

(13) The provisions of 40 C.F.R. §§264.96, 264.117, 265.111, 265.114, 270.10(e) and (g), 270.70, 270.71, and 270.73 and part 265, except subparts E, H, and DD and 40 C.F.R. §§265.112(d)(1), 265.115, and 265.120, are adopted by reference in R 299.11003, with the exception that the word "director" shall replace the term "regional."

R 299.9503 ~~Construction permits and~~ Operating licenses; exemptions.

Rule 503. (1) The following persons do not require ~~an construction permit or~~ operating license pursuant to the provisions of part 111 of the act:

(a) Persons who own or operate a facility that treats, stores, or disposes of hazardous waste in compliance with the provisions of parts 31, 55, and 115 of the act, if the only hazardous wastes the facility treats, stores, or disposes of are conditionally exempt small quantities that are exempted from regulation pursuant to the provisions of R 299.9205.

(b) Generators who accumulate hazardous waste on site for less than the time periods provided in R 299.9306.

(c) Farmers who dispose of waste pesticides from their own use in compliance with the provisions of R 299.9204(3)(b).

(d) Owners or operators of totally enclosed treatment facilities.

(e) Owners or operators of elementary neutralization units.

(f) Owners or operators of wastewater treatment units, if the following conditions, as applicable, are complied with:

(i) The units are subject to regulation pursuant to the provisions of section 402 or 307(b) of the federal clean water act.

(ii) The units are located on the site of a generator and do not treat hazardous waste from any other generator unless the waste is shipped entirely by pipeline or the off-site generator has the same owner as the facility at which the unit is located.

(iii) If an owner or operator is diluting D001 waste, other than D001 high TOC subcategory waste as defined in 40 C.F.R. §268.40, or D003 waste, to remove the hazardous characteristic before land disposal, the owner or operator complies with the requirements of 40 C.F.R. §§264.17(b) and 265.17(b), as applicable.

(g) Transporters storing manifested shipments of hazardous waste in containers at a transfer facility for a period of 10 days or less, if the transfer facility requirements of R 299.9404 are met.

(h) Persons adding absorbent material to hazardous waste in a container, and persons adding hazardous waste to absorbent material in a container, if all of the following conditions are met:

(i) The actions occur at the site of generation at the time hazardous waste is first placed in the container.

(ii) Liquids are not absorbed in materials that biodegrade or that release liquids when compressed.

(iii) The provisions of 40 C.F.R. §§264.17(b), 264.171, and 264.172 are complied with.

(i) Generators who have on-site treatment facilities if a generator complies with all of the following requirements:

(i) All treatment is conducted in either containers or tanks.

(ii) If the treatment occurs in containers, then all of the following requirements are complied with:

(A) The requirements of 40 C.F.R. part 265, subpart I, except 40 C.F.R. §265.173.

(B) The containers holding hazardous waste are always closed, except when it is necessary to add, remove, or treat the waste.

(C) The containers holding hazardous waste are not opened or handled in a manner that may rupture the containers or cause them to leak.

(D) The containment requirements of 40 C.F.R. §264.175.

(E) The generator documents the inspections required pursuant to the provisions of 40 C.F.R. §265.174.

(iii) If the treatment occurs in tanks, the requirements of 40 C.F.R. part 265, subpart J, except for the provisions of 40 C.F.R. §§265.197(c) and 265.200.

(iv) The requirements of 40 C.F.R. part 265, subpart C.

(v) The area where the waste is treated is protected, as appropriate for the type of waste being treated, from weather, fire, physical damage, and vandals.

(vi) Hazardous waste treatment is conducted so that hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.

(vii) The closure standards of 40 C.F.R. §§265.111 and 265.114.

(viii) All treatment is completed within 90 days from the date that accumulation of the waste began if the generator is a large quantity generator or within 180 days from the date that the accumulation of the waste began if the generator is a small quantity generator.

(ix) Documentation is maintained on site which specifies the date that accumulation of the waste began, the date that treatment of the waste began, and the date that treatment of the waste was completed.

(x) The requirements of R 299.9602, R 299.9603(1)(b) to (f) and (4), R 299.9604, R 299.9627, and R 299.9633.

(j) Universal waste handlers and universal waste transporters when handling the wastes identified in R 299.9228(1). Universal waste handlers and universal waste transporters are subject to the provisions of R 299.9228 when handling the universal wastes identified in R 299.9228(1).

(k) Owners or operators who use a pipeline for the sole purpose of transferring wastes to and from treatment or storage tanks at the facility and bulk railcars at an off-site transfer facility, if all of the following requirements are met:

(i) The pipeline is owned and operated by the owner or operator.

(ii) The pipeline meets the requirements for ancillary equipment pursuant to the provisions of 40 C.F.R. part 264, subpart J.

(iii) Wastes are not stored in the pipeline.

(iv) The owner or operator establishes as part of their waste analysis plan procedures for receipt of the wastes by the facility to and from the transport vehicle.

(v) The owner or operator uses the pipeline solely as a method of transferring wastes and not as an extension of the facility boundary beyond the area specified in their current operating license; ~~construction permit~~, or authorization.

(1) Owners or operators of facilities which store military munitions that have been classified as a waste in accordance with part 2 of these rules unless otherwise specified in R 299.9817.

(2) A person who is engaged in treatment or containment activities during immediate response to a discharge of a hazardous waste, an imminent and substantial threat of a discharge of hazardous waste, a discharge of a material which, when discharged, becomes a hazardous waste, or an immediate threat to human health, public safety, property, or the environment, from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist shall not be subject to the ~~construction permit~~ and operating license requirements of part 111 of the act and these rules. Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part and part 6 of these rules, except as provided in subrule (4) of this rule. In the case of an explosives or munitions emergency response, if a federal, state, tribal or local official acting within the scope of his or her official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have EPA identification numbers. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit shall retain records for 3 years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(3) The following shall be deemed to have an operating license and shall not be subject to the ~~construction permit~~ **operating license** requirements of part 111 of the act and these rules, **for new facilities or expanded, enlarged, or altered existing facilities** if the listed conditions are met:

(a) The owner or operator of an injection well disposing of hazardous waste, if the owner or operator meets all of the following requirements:

(i) Has a permit for underground injection that is issued pursuant to the provisions of 40 C.F.R. parts 124, 144, 145, 146, and 147, subpart X.

(ii) Complies with the conditions of the permit and the requirements of the provisions of 40 C.F.R. §144.14.

(iii) Has a permit for underground injection that is issued pursuant to the provisions of 40 C.F.R. parts 124, 144, 145, 146, and 147, subpart X, and that is issued after November 8, 1984, and complies with both of the following:

(A) The provisions of R 299.9629, Corrective action.

(B) Where the underground injection well is the only unit at a facility that requires a permit, complies with the provisions of 40 C.F.R. §270.14(d).

(b) The owner or operator of a publicly owned treatment works that accepts hazardous waste for treatment if the waste is in compliance with all federal, state, and local pretreatment requirements that would be applicable to the waste if it were being discharged into the publicly owned treatment works (POTW) through a sewer, pipe, or similar conveyance, if the owner or operator has a national pollutant discharge elimination system (NPDES) permit and the owner or operator complies with the conditions of the permit, and if the owner or operator complies with all of the following requirements:

(i) The provisions of 40 C.F.R. §264.11, Identification number.

(ii) The provisions of R 299.9608, Use of manifest system.

(iii) The provisions of R 299.9609, Operating record; availability, retention and disposition of records.

(iv) The provisions of R 299.9610, Reporting.

(v) For NPDES permits issued after November 8, 1984, the provisions of R 299.9629, Corrective action.

(4) The director shall exempt persons who conduct the following activities from the ~~construction permit~~ and operating license requirements of part 111 of the act and these rules, but only if the exemption does not constitute a less stringent permitting requirement than is required pursuant to the provisions of RCRA:

(a) The treatment of hazardous waste during the closure of a treatment, storage, or disposal unit, if both of the following conditions apply:

(i) The treatment occurs at the site of generation.

(ii) The treatment is authorized in a closure plan approved by the director or his or her designee.

(b) Closure of an existing surface impoundment for hazardous waste that is closed as a landfill pursuant to the provisions of R 299.9616(3), if the closure is authorized in a closure plan approved by the director or his or her designee and an operating license is obtained for the postclosure period.

(c) The treatment, storage, or disposal of hazardous waste at the individual site of generation if conducted solely in response to, or as corrective action under, and in full compliance with, a plan developed or approved by the director, or his or her designee, pursuant to the provisions of part 31, 111, 201, or 213 of the act, or an administrative or judicial consent order to which the director is a party and if the treatment, storage, or disposal is conducted in accordance with the technical standards of part 6 of these rules.

(d) Treatment, storage, or disposal of hazardous waste at the individual site of generation, if conducted solely in response to, or as a corrective action under, and in full compliance with CERCLA.

(5) The provisions of 40 C.F.R. parts 124, 144, 145, 146, 147, and 265, subparts I and J, except

§§265.197(c) and 265.200, and §§264.11, 264.17(b), 264.171, 264.172, 264.175, 265.111, 265.114, and 268.7(a)(4) are adopted by reference in R 299.11003.

R 299.9504 ~~Construction permit~~ Operating license application for new facilities; the expansion, enlargement, or alteration of existing facilities; **content.**

Rule 504. (1) In addition to the information ~~that may be required pursuant to subrule (18) of this rule,~~ all applications for **an operating license for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~ shall include all of the following items:

- (a) ~~An construction permit~~ application fee or deposit as calculated pursuant to R 299.9507.
 - (b) General information that is required pursuant to 40 C.F.R. §270.13.
 - (c) General information that is required pursuant to 40 C.F.R. §270.14(b) and (d).
 - (d) A hydrogeological report that contains the information required pursuant to R 299.9506.
 - (e) An environmental assessment, including a failure mode assessment that provides an analysis of the potential major methods by which safe handling of hazardous wastes may fail at a treatment, storage, or disposal facility. The owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill shall include, in the environmental assessment, information that is reasonably ascertainable by the owner or operator on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, the information shall address all of the following subjects:
 - (i) Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit.
 - (ii) The potential pathways of human exposure to hazardous waste or constituents resulting from the releases described in paragraph (i) of this subdivision.
 - (iii) The potential magnitude and nature of the human exposure resulting from the releases described in paragraph (i) of this subdivision.
 - (f) An environmental monitoring program that is in compliance with R 299.9611.
 - (g) Engineering plans of all process equipment and containment structures at the facility. The plans shall be prepared and sealed by a registered professional engineer and shall include all of the following information:
 - (i) Plan views, elevations, sections, and supplementary views that, together with general layout drawings, provide working information for the review of the facility.
 - (ii) Specifications on all construction materials and installation methods.
 - (iii) The basis of design for all process equipment and containment structures.
 - (iv) A flow diagram of the entire treatment, storage, or disposal process.
 - (v) The design capacity of each process.
 - (h) A written summary of the comments received at the preapplication meeting required by R 299.9511(1) and the applicant's response to the comments, including any revisions to the application.
- (2) Applicants proposing to store containers of hazardous waste shall submit the information required pursuant to 40 C.F.R. §270.15(a) to (e) in **an operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~.
- (3) Applicants proposing to store or treat hazardous waste in tanks shall submit the information required pursuant to 40 C.F.R. §270.16(a) to (k) in **an operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~.
- (4) Applicants proposing to incinerate or thermally treat hazardous waste in a hazardous waste incinerator that becomes subject to the ~~permitting or~~ licensing requirements of these rules after October 12, 2005, and applicants of existing hazardous waste incinerators shall submit either of the following in **an operating license application for a new facility or the expansion, enlargement, or**

alteration of an existing facility ~~construction permit~~. If the owner or operator demonstrates compliance with the air emission standards and limitations in 40 C.F.R. part 63, subpart EEE, by conducting a comprehensive performance test and submitting to the director a notification of compliance under 40 C.F.R. §§63.1207(j) and 63.1210(b) which documents compliance with all applicable requirements of 40 C.F.R. part 63, subpart EEE, then the requirements of this subrule do not apply, except those provisions the director determines are necessary to ensure compliance with 40 C.F.R. §§264.345(a) and (c) if the owner or operator elects to comply with 40 C.F.R. §270.235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. The director may apply this subrule, on a case-by-case basis, for collecting information pursuant to subrules (18) and (20) of this rule and R 299.9521(3)(b) and (c):

(a) A trial burn plan containing the information listed in 40 C.F.R. §270.62(a) to (d) and a statement that suggests the conditions necessary to operate in compliance with the performance standards of 40 C.F.R. §264.343 during the trial burn. The statement shall include, at a minimum, restrictions on waste constituents, waste feed rates, and the operating parameters identified in 40 C.F.R. §264.345.

(b) In place of a trial burn plan, the information specified in 40 C.F.R. §270.19(c). The director shall approve an application without a trial burn plan if he or she determines both of the following:

- (i) The wastes are sufficiently similar.
- (ii) The incinerator units are sufficiently similar and the data from other trial burns are adequate to specify operating conditions that will ensure that the performance standards of 40 C.F.R. §264.343 will be met by the incinerator.

(5) Applicants proposing to treat hazardous waste shall submit all of the following information in an **operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility ~~construction permit~~**:

(a) A demonstration of how the method and process proposed for the treatment of each hazardous waste will do any of the following:

- (i) Change the physical, chemical, or biological character or composition of the waste.
- (ii) Neutralize the waste.
- (iii) Recover energy or material resources from the waste.
- (iv) Render the waste nonhazardous, safer for handling or transport, amenable to recovery, amenable to storage, or reduced in volume.
- (v) Chemically bind or render the toxic constituents nonhazardous rather than only diluted.

(b) The proper treatment technique, the proper feed rates of treatment chemicals or reagents, and the proper operating conditions, such as temperature, pressure, and flow rate, for the types of hazardous wastes proposed for treatment, and the accuracy of the devices intended to measure these parameters.

(c) If the hazardous waste or treatment chemicals or reagents will have any detrimental effect on the materials used for construction, such as causing corrosion, dissolution, saltings, or sealings. If detrimental effects are possible, then the method of controlling them shall be specified.

(d) If the hazardous waste contains any constituents or contaminants that may interfere with the intended treatment process or decrease the effectiveness of the treatment and, if so, how the interferences will be controlled.

(e) If the hazardous waste contains constituents or contaminants that may cause the release of toxic gases or fumes during the intended treatment and, if so, how they will be controlled.

(f) If the hazardous waste contains constituents or contaminants that may form toxic constituents with the treatment chemicals or reagents during the intended treatment and, if so, how they will be controlled.

(g) Trial tests, including bench scale, pilot plant scale, or other appropriate tests, on each hazardous waste that is new or significantly different from hazardous waste previously treated to verify the information required in subdivision (b) of this subrule.

(6) Applicants proposing to treat or store hazardous wastes in surface impoundments shall submit the following information in an **operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~:

- (a) The information required for surface impoundments pursuant to 40 C.F.R. §270.17(a) to (j).
- (b) Information on the proposed liner, leachate collection, and leak detection, collection, and removal systems, as specified in R 299.9505.

(7) Applicants proposing to treat or store hazardous waste in waste piles shall submit the following information in an **operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~:

- (a) The information required for waste piles pursuant to 40 C.F.R. §270.18.
- (b) For new waste piles, information on the proposed liner, leachate collection, and leak detection, collection, and removal systems, as specified in R 299.9505.

(8) Applicants proposing to landfill hazardous waste shall submit all of the following information in an **operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~:

- (a) The information required for landfills pursuant to 40 C.F.R. §270.21.
- (b) Information on the proposed liner, leachate collection, and leak detection, collection, and removal systems, as specified in R 299.9505.

(c) Detailed engineering plans and an engineering report describing the final cover that will be applied to the landfill or each landfill cell pursuant to R 299.9619.

(9) Applicants proposing to dispose of hazardous wastes by land treatment shall submit the information required pursuant to 40 C.F.R. §270.20 in an **operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~.

(10) Applicants proposing facilities that treat, store, or dispose of hazardous waste in miscellaneous units shall submit the information required pursuant to 40 C.F.R. §270.23 in an **operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~.

(11) Applicants proposing facilities that store or dispose of hazardous waste in an underground mine or cave shall submit all of the following information in an **operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~:

- (a) A geologic report that contains the following information:
 - (i) For the receiving formation and other formations that are within 30 feet above and below the receiving formation, an applicant shall provide all of the following information:
 - (A) The depth from the surface.
 - (B) Thickness.
 - (C) Permeability.
 - (D) Solubility.
 - (E) Reactivity.
 - (F) Compatibility.
 - (G) Composition.

This information shall be obtained by performing not less than 5 borings for the first 5 acres of the entire mine or cave and 3 borings for each additional 5 acres. Each boring site shall consist of a ceiling boring and a floor boring.

(ii) For the formations that are overlying the receiving formation for a lateral extent of not less than 5 miles from the facility boundary, an applicant shall provide all of the following information:

- (A) The depth from the surface.
- (B) Thickness.
- (C) Composition.
- (D) The identification of water, oil, or gas-bearing formations.

This information shall be obtained from existing geological information and reports.

(b) An assessment of the potential for water intrusion into the mine or cave. This assessment shall be used in the evaluation pursuant to R 299.9628(3)(a).

(c) Information on the means of transporting waste from any surface operation to the final disposal or storage area in the receiving formation and information on the means of preventing the release of hazardous constituents during transportation.

(d) An assessment of the structural stability of the mine or cave.

(e) Information on the proposed means of controlling the use, access, and penetration of the mine or cave.

(f) A demonstration that a sufficient buffer zone or other control exists to ensure that off-site activities will not adversely impact the integrity of the mine or cave.

(g) A proposed means of correlating waste placement locations to surface locations and a waste placement map.

(h) A proposed means of managing water in the mine or cave so as to maintain the integrity of the mine or cave and protect human health and the environment throughout the facility's active life and after closure of the facility.

(12) Applicants proposing hazardous waste treatment, storage, or disposal facilities that have process vents to which R 299.9630 applies shall submit the information required pursuant to 40 C.F.R. §270.24 **in an operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~.

(13) Applicants proposing hazardous waste treatment, storage, or disposal facilities that have equipment to which R 299.9631 applies shall submit the information required pursuant to 40 C.F.R. §270.25 **in an operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~.

(14) Applicants proposing treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads shall submit the information required pursuant to 40 C.F.R. §270.26 **in an operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~.

(15) Applicants proposing to burn hazardous waste in a boiler or industrial furnace shall submit the information required pursuant to 40 C.F.R. §270.22 **in an operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility**.

(16) Applicants proposing hazardous waste treatment, storage, or disposal facilities that have tanks, surface impoundments, or containers to which R 299.9634 applies shall submit the information required pursuant to 40 C.F.R. §270.27 **in an operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~.

(17) ~~Construction permit~~ **Operating license** applications **for a new facility or the expansion, enlargement, or alteration of an existing facility** shall be signed and certified pursuant to 40 C.F.R. §270.11. In addition, the application shall be signed by the titleholder of the land upon which the facility is proposed to be located.

(18) The director may require a licensee or applicant to submit additional information to establish license conditions pursuant to R 299.9521.

(19) A licensee or applicant may demonstrate to the director, or his or her designee, that less information than that specified in this rule is necessary to determine conformance with the requirements of part 6 of these rules and establish ~~permit or~~ license conditions pursuant to this part. If the licensee or applicant demonstrates that less information is required, the director, or his or her designee, shall waive the information requirement, except that the director, or his or her designee, shall not require less information than is required by RCRA.

(20) If the director concludes, based on 1 or more of the factors listed in 40 C.F.R. §270.10(l)(1), that compliance with the standards of 40 C.F.R. part 63, subpart EEE alone may not be protective of human health or the environment, the director shall require additional information or assessments to determine if additional controls are necessary to ensure protection of human health and the environment. This includes information necessary to evaluate the potential risk to human health or the environment resulting from both direct and indirect exposure pathways. The director may also require a licensee or applicant to provide the information necessary to determine if such an assessment should be required.

(21) The provisions of 40 C.F.R. §§264.343, 264.345, 266.102(e), 266.104 to 266.107, 270.10(l)(1), 270.11, 270.13, 270.14(b) and (d), 270.15(a) to (e), 270.16(a) to (k), 270.17(a) to (j), 270.18, 270.19(c), 270.20, 270.21, 270.22, 270.23, 270.24, 270.25, 270.26, 270.27, 270.62(a) to (d), 270.66, and 270.235(a)(1)(i) are adopted by reference in R 299.11003, with the exception that the term "waste management unit" shall replace the term "solid waste management unit."

R 299.9505 ~~Construction permit~~ Operating license application for new facilities; and expansion, enlargement, or alteration of existing facilities; liner systems for landfills, surface impoundments, and waste piles.

Rule 505. (1) Applicants proposing a landfill, surface impoundment, or waste pile shall submit the following information in the engineering report for the liner, leachate collection system, and leak detection, collection, and removal system:

(a) Information concerning the vertical and horizontal isolation distance from groundwater and any dewatering system necessary to meet the isolation requirements of R 299.9603(5). All of the following information shall be submitted for dewatering systems:

- (i) Design calculations for drain pipe diameter and spacing.
- (ii) Design features that allow cleaning of drainage pipes to prevent clogging within the system.
- (iii) Evaluation of corrosive resistance and structural suitability of underdrain pipe under both static and dynamic loadings.

(b) Information concerning soils to be used for any compacted soil liner, including, at a minimum, all of the following:

- (i) Source of the soils.
- (ii) Uniformity of the soil source.
- (iii) Classification of the soil under the unified soil classification system, according to ASTM standard D2487-~~1169~~, which is adopted by reference in R 299.11001.
- (iv) Particle size distribution according to both sieve and hydrometer testing.
- (v) The moisture-density relationship of the soil according to the modified proctor test, ASTM standard D1557-~~912~~, or the standard proctor test ASTM standard D698-~~912~~, which are adopted by reference in R 299.11001.
- (vi) The compaction necessary to achieve a permeability with water not greater than 1.0×10^{-7} cm/sec., and the permeability of the soil under a compaction of 90% of the maximum dry density, as determined by the modified proctor test, ASTM standard D1557-~~912~~, or 95% of the maximum dry density, as determined by the standard proctor test, ASTM standard D698-~~912~~.

(vii) The permeability of the soil under the conditions of paragraph (vi) of this subdivision utilizing liquid similar to the leachate that would be expected from the proposed facility.

(viii) Procedures for complying with the quality control requirements of R 299.9621.

(c) Information on any synthetic liner to be used, including all of the following:

(i) Methods of storage, handling, and installation, including any written instructions from the manufacturer and procedures for complying with the quality control requirements of R 299.9621.

(ii) Physical properties of the liner material, such as the following:

(A) Thickness.

(B) Resiliency.

(C) Elongation.

(D) Tensile strength.

(E) Breaking strength.

(F) Tear strength.

(G) Dimensional stability.

(H) Bonded seam strength.

(I) Hydrostatic resistance.

(J) Ply adhesion.

(K) Volatile loss.

(L) Water extraction.

(M) Water absorption.

(iii) Ability of liner material to maintain physical properties under all of the following prolonged and varying conditions expected at the proposed facility:

(A) Temperature.

(B) pH.

(C) Ultraviolet radiation.

(D) Biological attack.

(E) Leachate composition.

(d) Information on the characteristics of soils underlying any compacted or synthetic liner. This information shall include all of the following:

(i) Settlement analysis which estimates total and differential settlement, including immediate settlement, primary consolidation, and secondary consolidation based on maximum loading.

(ii) Strength analysis which determines the bearing capacity and stability of the underlying soils.

(iii) Slope stability analysis, including all of the following information:

(A) Side slope stability under excavation.

(B) Liner system stability under construction.

(C) Waste mass stability during filling sequence.

(D) Final cover stability.

(E) Long-term postclosure stability.

(iv) Performance under varying groundwater conditions.

(v) Potential for bottom heave or blowout.

(e) Information on the design of the leachate collection system and the leak detection, collection, and removal system. Such information shall include, at a minimum, all of the following:

(i) Calculations to determine the anticipated volume of leachate to be generated.

(ii) The granular material to be used to allow adequate flow and removal of liquid and to provide an aggregate envelope for collection pipe.

(iii) The design of collection pipe, including all of the following information:

(A) Diameter.

(B) Perforations.

- (C) Slope.
- (D) Spacing.
- (E) Chemical resistance.
- (F) Structural integrity under static and dynamic loadings.
- (iv) Procedures to prevent clogging.
- (v) The design of the leachate removal system, including all of the following information:
 - (A) Leachate inflow.
 - (B) Sump dimensions.
 - (C) Pump on and off levels.
 - (D) Effective storage volume of sump.
 - (E) Riser pipe.
 - (F) Total discharge head of pump.
 - (G) Pump selection.
 - (H) Pump cycle time.
- (vi) Calculations which demonstrate that the leachate head will be 12 inches (30 centimeters) or less above the liner at any point, except the sump.
- (f) Information on stormwater management. Such information shall include, at a minimum, all of the following:
 - (i) Run-on volumes, systems, and management plans.
 - (ii) Runoff volumes, systems, and management plans.
 - (iii) Stormwater discharge system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.
- (2) Applicants proposing a landfill, surface impoundment, or waste pile shall submit a construction quality assurance plan which includes a description of all of the following:
 - (a) The responsibility and authority of all organizations and key personnel involved in **licensing** ~~permitting~~, designing, and constructing the hazardous waste land disposal facility.
 - (b) The qualifications of inspection personnel to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities.
 - (c) The observations, tests, and sampling that will be used to monitor the installation of the hazardous waste disposal facility in accordance with R 299.9621, including a description of all of the following:
 - (i) Sampling activities.
 - (ii) Sample size.
 - (iii) Frequency of testing.
 - (iv) Acceptance and rejection criteria.
 - (v) Plans for implementing corrective measures.
 - (d) A description of how construction quality assurance data will be recorded.

R 299.9506 Hydrogeological reports; content.

Rule 506. (1) A hydrogeological report shall include all of the following information:

- (a) A summary of the groundwater monitoring data obtained during the interim status period pursuant to the provisions of 40 C.F.R. part 265, subpart F, where applicable, and a summary of any other groundwater monitoring data collected pursuant to state or federal law.
- (b) Identification of the uppermost aquifer and aquifers hydraulically interconnected to the uppermost aquifer beneath the facility property, including groundwater flow direction and rate, and the basis for the identification.
- (c) Identification of any aquifer utilized by public and private wells within 2,000 feet of the proposed site.

- (d) Identification of all other aquifers evidenced by available well or boring logs.
- (e) The delineation of all of the following on the topographic map required pursuant to the provisions of 40 C.F.R. §270.14(b)(19):
 - (i) The waste management area and any other treatment or storage areas.
 - (ii) The property boundary.
 - (iii) The proposed point of compliance, as defined pursuant to the provisions of 40 C.F.R. §264.95.
 - (iv) The proposed location of groundwater monitoring wells as required pursuant to the provisions of 40 C.F.R. §264.97.
 - (v) To the extent possible, the information required pursuant to the provisions of subdivision (b) of this subrule.
- (f) On the topographic map required pursuant to the provisions of 40 C.F.R. §270.13(1), identification of all domestic, municipal, industrial, oil, and gas wells and soil borings within 1 mile of the site in all directions for which copies of logs are available.
- (g) A description of any plume of contamination that has entered the groundwater from a hazardous waste management unit or other regulated activity at the site at the time that the application was submitted that does both of the following:
 - (i) Delineates the extent of the plume on the topographic map required pursuant to the provisions of 40 C.F.R. §270.14(b)(19).
 - (ii) For landfills, surface impoundments, land treatment units, and waste piles, identifies the concentration of each constituent listed in the provisions of 40 C.F.R. part 261, appendix VIII, throughout the plume or identifies the maximum concentrations of each constituent in the plume.
- (2) A hydrogeological report shall include detailed plans and an engineering report describing the proposed groundwater monitoring program to be implemented to meet the requirements of R 299.9612 or a justification for a waiver pursuant to the provisions of subrule (7) of this rule. The engineering report shall include all of the following information for this purpose:
 - (a) Soil boring logs and the results of soil sampling from the borings that are sufficient to adequately define soil and groundwater conditions at the site. All of the following procedures shall be utilized in collecting the data:
 - (i) Not less than 5 soil borings shall be made for the first 5 acres of the site, and 3 borings shall be made for each additional 5 acres or portion thereof. A lesser number of borings may be made for nonactive portions of the site, such as buffer zones, and by supplementing boring information with geophysical testing, such as resistivity surveys. Soil borings shall be located in a grid pattern so that there is a minimum of 1 boring in each major geomorphic feature, such as ridges, lowlands, and drainage swales, and all borings shall extend not less than 30 feet below proposed grade or the anticipated bottom elevation of any installed or constructed liner.
 - (ii) At each boring, soil samples shall be collected from each soil layer or change in lithology. Two of the 5 soil borings that are required by the provisions of paragraph (i) of this subdivision shall be evaluated and logged using continuous sampling methods, such as continuous tube sampling, coring, or continuously driven split spoons. For sites that are larger than 5 acres, 1 of each of the 3 additional soil borings that are required by the provisions of paragraph (i) of this subdivision shall be evaluated and logged using continuous sampling methods. Samples that are collected from each soil layer or change in lithology shall be tested for all of the following:
 - (A) Particle size distribution by both sieve and hydrometer.
 - (B) Atterburg limits according to ASTM standard D42318-1066 and ASTM standard D424-59, which are adopted by reference in R 299.11001.
 - (C) Classification pursuant to the unified soil classification system, according to ASTM standard D2487-6911, which is adopted by reference in R 299.11001.

(iii) Each soil layer at a site shall be evaluated for both of the following:

(A) Moisture content, according to ASTM standard D422-63, which is adopted by reference in R 299.11001.

(B) Permeability with water by the triaxial cell method as described in the EPA document entitled "Soil Properties, Classification, and Hydraulic Conductivity Testing," which is adopted by reference in R 299.11008; constant head method, according to ASTM standard D2434-68, which is adopted by reference in R 299.11001; approved in-situ field method; or other method approved by the director. All soil samples collected for determination of permeability shall be collected by standard undisturbed soil sampling techniques, such as a 3-inch diameter Shelby tube or large diameter split spoon.

(iv) Boring logs shall include all of the following:

(A) Soil and rock descriptions.

(B) Method of sampling.

(C) Sample depth.

(D) Date of boring.

(E) Water level measurements.

(F) Soil test data.

(G) Boring location.

(H) Standard penetration number by ASTM standard D1586-~~67~~**11**, which is adopted by reference in R 299.11001.

(v) All soil borings that are not converted to observation wells pursuant to the provisions of subdivision (b) of this subrule shall be carefully backfilled, plugged, and recorded in accordance with the provisions of the well installation and well decommissioning procedures in

ASTM standards D5092-904 (2010)e1 and D5299-992, or a plan approved by the director.

(vi) All elevations shall be corrected to United States geological survey (USGS) datum.

(b) Static water level measurements from observation wells and, where appropriate, well clusters which are located at the sites of soil borings and which are constructed in accordance with the provisions of R 299.9612. Measurements shall be accurate to the nearest 0.01 foot, corrected to United States geological survey (USGS) datum, and shall be taken from not less than 3 observation wells and 1 well cluster for the first 5 acres of the facility or portion thereof and 1 observation well for each additional 10 acres or portion thereof. Landfills, surface impoundments, waste piles, and land treatment facilities shall have not less than 3 well clusters established as part of the monitor well system and at least 1 cluster well for each 20 acres of the proposed site. All observation wells shall be constructed and abandoned in accordance with the well installation and well decommissioning procedures in ASTM standards D5092-904 (2010)e1 and D5299-992, or a plan approved by the director.

(c) A water level contour map based on stabilized water level readings and using values contoured on an interval of not more than 1 foot.

(d) If more than 2 well clusters have been constructed, then groundwater flow net diagrams illustrating horizontal and vertical flow directions of groundwater.

(e) The location and depth of all observation wells and evidence that these observation wells are located effectively to detect hazardous constituents from the facility, based on all of the following:

(i) Groundwater flow direction.

(ii) Velocity.

(iii) Horizontal and vertical gradients.

(iv) Thickness of the saturated zone.

(v) The dispersion properties of hazardous waste constituents, such as the following:

(A) Specific gravity.

(B) Solubility.

(C) Chemical reactivity within the formation.

(D) Characteristics of decomposition products.

(f) At each soil boring that is to be completed as an observation well during or following the hydrogeologic investigation, the lithology of that soil boring shall be continuously sampled, logged, and classified pursuant to the unified soil classification system in accordance with ASTM standard D2487-6911, which is adopted by reference in R 299.11001, from an elevation of 10 feet above the expected screened interval to the base of the borehole. Continuous sampling tubes, coring devices, or continuously collected split spoon samples may be used to satisfy this requirement. The director may allow the substitution of alternate information for this requirement or waive this requirement based on available information, site-specific hydrogeologic conditions, and available technology.

(3) If the presence of hazardous constituents has not been detected in the groundwater at the time of ~~permit or~~ license application, then the owner or operator shall submit sufficient information, supporting data, and analysis to establish a detection monitoring program that is in compliance with the requirements of R 299.9612 and the provisions of 40 C.F.R. §264.98. The submission shall include all of the following:

(a) A proposed list of primary and secondary monitoring parameters and proposed monitoring frequencies for these parameters.

(b) A proposed groundwater monitoring system.

(c) Background values for each proposed primary and secondary monitoring parameter or procedures to calculate such values.

(d) A description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data.

(e) Procedures for preventing cross-contamination in wells during activities such as well installation, purging, or sampling.

(f) Evidence that sampling procedures and well construction materials are compatible with proposed monitoring parameters.

(4) If the presence of hazardous constituents has been detected in the groundwater at the point of compliance at the time of license application, the owner or operator shall submit sufficient information, supporting data, and analysis to establish a compliance monitoring program that is in compliance with the requirements of R 299.9612 and the provisions of 40 C.F.R. §264.99. The submission shall include all of the following:

(a) A description of the wastes previously handled at the facility.

(b) A characterization of the contaminated groundwater, including concentrations of hazardous constituents.

(c) A list of hazardous constituents for which compliance monitoring will be undertaken in accordance with the provisions of R 299.9612 and 40 C.F.R. §§264.97 and 264.99.

(d) Proposed concentration limits for each hazardous constituent which do not exceed the background level of that constituent in the groundwater or which do not exceed a concentration limit that is not less stringent than allowed pursuant to the provisions of RCRA and that has been established pursuant to the provisions of part 201 of the act.

(e) Detailed plans and an engineering report describing the proposed groundwater monitoring system in accordance with the requirements of 40 C.F.R. §264.97.

(f) A description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data.

(5) If hazardous constituents have been measured in the groundwater that exceed the concentration limits established pursuant to the provisions of 40 C.F.R. §264.94(a)(2), Table I, or if groundwater

monitoring conducted at the time of the license application indicates the presence of hazardous constituents from the facility in groundwater over background concentrations, then the owner or operator shall submit sufficient information, supporting data, and analyses to establish a corrective action program that is in compliance with the requirements of R 299.9612 and the provisions of R 299.9629. To demonstrate compliance with the provisions of R 299.9612 and R 299.9629, the owner or operator shall address, at a minimum, all of the following items:

(a) A characterization of the contaminated groundwater, including concentrations of hazardous constituents.

(b) The concentration limit for each hazardous constituent found in the groundwater, which shall not exceed the background level of that constituent found in the groundwater at the time that limit is specified in the operating license.

(c) Detailed plans and an engineering report describing the corrective action to be taken.

(d) A description of how the groundwater monitoring program will demonstrate the adequacy of the corrective action.

(6) For landfills, surface impoundments, waste piles, and land treatment units, a hydrogeological report shall include all of the following additional information that is necessary to determine site suitability and facility design:

(a) For each boring made pursuant to the provisions of subrule (2) of this rule, all of the following tests at intervals of not more than 5 feet or change in geologic formation:

(i) Particle size distribution by both sieve and hydrometer.

(ii) Atterburg limits according to ASTM standard D4231-66~~10~~ and ASTM standard D424-5, which ~~are~~ ~~is~~ adopted by reference in R 299.11001.

(iii) Classification pursuant to the unified soil classification system according to ASTM standard D2487-69~~11~~, which is adopted by reference in R 299.11001.

(b) For each boring mad pursuant to the provisions of subrule (2) of this rule, the following tests at intervals of not more than 10 feet:

(i) Permeability, by any of the following methods:

(A) The triaxial cell method, as described in the EPA document entitled "Soil Properties, Classification and Hydraulic Conductivity Testing," which is adopted by reference in R 299.11008.

(B) The constant head method, according to ASTM standard D2434-68, which is adopted by reference in R 299.11001.

(C) An in-situ field method approved by the director.

(D) Other methods approved by the director.

(ii) Moisture content, according to ASTM standard D422-63, which is adopted by reference in R 299.11001.

(c) Soil boring logs and the results of soil sampling from such borings that are sufficient to adequately define bedrock conditions at the site.

(d) Additional information for determining the geotechnical characteristics of each soil layer at the site, such as any of the following:

(i) Shear strength.

(ii) In-situ density.

(iii) Specific gravity.

(iv) Stress deformation.

(v) Shrinkage limit.

(vi) Clay mineralogy.

(vii) Information on the presence of cracks, fissures, and other voids that may increase the effective permeability of the soil.

(e) A series of geologic cross sections or fence diagrams referenced to a site map and illustrating all of the following:

- (i) Existing topography.
- (ii) Soil borings.
- (iii) Soil classification.
- (iv) Stratigraphy and other properties.
- (v) Bedrock.
- (vi) Wells.
- (vii) Stabilized water level readings and proposed site grades.

(f) Water budget calculations under present site conditions, future active operations, and, for disposal facilities, the postclosure period. The calculations shall consider all of the following factors:

- (i) Precipitation.
- (ii) Evaporation.
- (iii) Runoff.
- (iv) Infiltration.
- (v) Evapotranspiration.
- (vi) Groundwater flow velocities and volume.
- (vii) Soil moisture-holding capacity.
- (viii) For disposal facilities, the capacity of proposed waste types to hold moisture.

(7) The director may waive or substitute alternate information for the information specified in subrule (2) or (6) of this rule based on site-specific considerations and available technology.

(8) The provisions of 40 C.F.R. §§264.94(a)(2), table 1, 264.95, 264.97, 264.98, 270.13(l), and 270.14(b)(19) and part 265, subpart F, are adopted by reference in R 299.11003.

R 299.9507 ~~Construction permit~~ Operating license for new facilities; and expansion, enlargement, or alteration of existing facilities; application fees.

Rule 507. (1) The applicant shall calculate the **operating license for new facilities and the expansion, enlargement, or alteration of existing facilities** application fee by totalling the appropriate fees in items (1), (2), (3), and (4) of table 501 of R 299.9523. Each ~~construction permit~~ application requires a separate application fee.

(2) A check made payable to the state of Michigan for the calculated fee shall be attached to the application **for an operating license for new facilities and the expansion, enlargement, or alteration of existing facilities. The check shall include the term “HWOL” in the comment section.**

~~(3) The applicant may request, upon application submittal, that the application fee be based on the cost of review, which consists of actual work hours required for construction permit review plus the cost of any public notices published or broadcast. This request shall be made, in writing, on the construction permit application. The applicant shall be assessed the actual review cost fee. A construction permit shall not be issued by the director until all fees required by this rule are paid in full. If the actual review cost fee is less than the calculated fee, the difference between the actual review cost fee and the calculated fee submitted with the application shall be refunded within 60 days after the construction permit is approved or denied.~~

~~(4) An applicant who has requested that the application fee be based on actual review costs forfeits the further opportunity to use calculated fees according to table 501 of R 299.9523.~~

~~(5) If an ~~construction permit~~ operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility is not resubmitted after being found to be administratively incomplete, the application fee, minus the cost of all public notices published or broadcast, shall be refunded.~~

~~(46) If an construction permit~~ **operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** is denied, no portion of the application fee shall be refunded.

(57) An applicant who makes a reapplication for a revised proposal within 6 months of denial shall be assessed only the actual costs to review the revised proposal. These actual costs shall not exceed the calculated fee from table 501 of R 299.9523.

(68) An applicant who withdraws **an operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** within 14 days of receipt by the director shall have 70% of the original application fee, minus the cost of all public notices published or broadcast, refunded ~~or shall be charged actual review costs if the option under subrule (3) of this rule was chosen.~~

(79) An applicant who withdraws **an operating license application for a new facility or the expansion, enlargement, or alteration of an existing facility** within 30 days of receipt by the director shall have 35% of the original application fee, minus the cost of all public notices published or broadcast, refunded ~~or shall be charged actual review costs if the option under subrule (3) of this rule was chosen.~~

~~(810) An applicant who withdraws an application between 30 and 60 days after receipt by the director shall be issued a refund which is equal to 20% of the original application fee, minus the cost of all public notices published or broadcast, or shall be charged actual review costs if the option under subrule (3) of this rule was chosen.~~

R 299.9508 Operating license application **for existing facilities**; contents.

Rule 508. (1) An application for an operating license **for existing facilities** shall include all of the following, except as provided for in subrule (3) of this rule:

(a) The names and addresses of the owner and the operator, including the name and address of the titleholder of the land on which the treatment, storage, or disposal facility is constructed; the location and description of the disposal facility; and other information pertinent to evaluation of the facility which is required by the director on an application form provided by the director.

(b) All information required for **an operating license** ~~construction permit~~ application **for new facilities or the expansion, enlargement, or alteration of existing facilities** pursuant to R 299.9504.

(c) For a treatment, storage, or disposal facility which has **an operating license** ~~construction permit~~ **for a new facility or the expansion, enlargement, or alteration of an existing facility** under part 111 of the act, any revisions to the cost estimates for closure and for postclosure maintenance and monitoring submitted with the **operating license** ~~construction permit~~ application **for the new facility or the expansion, enlargement, or alteration of an existing facility**, and a written certification of construction pursuant to sections 23(23) and 25(9) of part 111 of the act.

(d) A certification of the treatment, storage, or disposal facility's capability for disposing of hazardous waste, except as provided in subdivision (g) of this subrule. The certification shall be prepared and sealed by a registered professional engineer.

(e) Proof of financial capability as required by part 7 of these rules.

(f) Proof of issuance of all necessary state environmental permits for construction and operation of the treatment, storage, or disposal facility or portion of the facility.

(g) An owner or operator of a facility which meets the criteria of R 299.9502(2), (3), and (4) who cannot demonstrate compliance as required under sections 23(23) and 25(9) of part 111 of the act shall submit a written program designed to bring the facility into compliance with part 111 of the act and these rules within 2 years from the date of license issuance. At a minimum, the program shall specify the necessary modifications to any procedure, equipment, process, or portion of the facility, together

with the expected dates of completion. The provisions of this subdivision may only be exercised in the first operating license application after the effective date of these rules and shall not be exercised in subsequent applications for license renewal.

(h) ~~An application license~~ fee of \$500.00.

(i) For a landfill, proof that an instrument imposing a restrictive covenant upon the land involved has been executed by all the owners of the tract of land upon which the landfill is to be located and by the director, as required by section 39 of part 111 of the act.

(2) The director shall waive the hydrogeological report requirements of R 299.9506 for existing facilities other than landfills, surface impoundments, waste piles, or land treatment facilities if all treatment, storage, and waste-handling activities take place inside or under a structure that provides protection from precipitation and run-on and if the facility is in compliance with part 6 of these rules.

(3) An application for an operating license for the postclosure period shall include all of the following information, unless the director determines that additional information specified in R 299.9505, R 299.9506, or R 299.9508 is necessary:

(a) The information specified in 40 C.F.R. §270.14(b)(1), (4) to (6), (11), (13), (14), (18), and (19) and (d).

(b) The information specified in R 299.9506.

(c) The most recent postclosure cost estimate prepared in accordance with R 299.9702.

(d) A copy of the documentation required to demonstrate compliance with R 299.9703.

(4) Owners or operators ~~are required to~~ **shall** submit the same information required in subrule (3) of this rule when an alternate authority is used in place of an operating license for the postclosure period as provided for in part 5 of these rules.

(5) Operating license applications **for existing facilities** shall be signed and certified in accordance with the provisions of 40 C.F.R. §270.11 and by the title holder of the land upon which the facility is located.

(6) The provisions of 40 C.F.R. §§270.11 and 270.14(b) and (d) are adopted by reference in R 299.11003.

R 299.9509 Submittal and processing of ~~operating license construction permit~~ applications **for new facilities or the expansion, enlargement, or alteration of existing facilities.**

Rule 509. (1) Any person who requires an **operating license for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~ under part 111 of the act shall complete, sign, and submit, to the director, an application for each **operating license for a new facility or expansion, enlargement, or alteration of an existing facility** ~~construction permit~~ required under R 299.9501 as described in this rule. All applicants for **operating licenses for new facilities or the expansion, enlargement, or alteration of existing facilities** ~~construction permits~~ shall provide the information ~~set forth~~ in R 299.9504 to the director on the application form provided by the director.

(2) The director shall not begin processing an **operating license** ~~construction permit~~ application **for a new facility or the expansion, enlargement, or alteration of an existing facility** until the application is complete. An application for an **operating license** ~~construction permit~~ **for a new facility or the expansion, enlargement, or alteration of an existing facility** is complete when the director receives an application which includes all the information required by section ~~23(2)+8(3)~~ of part 111 of the act and R 299.9504. The completeness of any application for an **operating license** ~~construction permit~~ **for a new facility or the expansion, enlargement, or alteration of an existing facility** shall be judged independently of the status of any other permit or permit application for the same facility. The statutory timetable of section ~~25(4)+9(2)~~ of part 111 of the act and the timetable of subrule (4) of this rule shall begin upon receipt of a complete **operating license** ~~construction permit~~ application **for a new facility**

or the expansion, enlargement, or alteration of an existing facility.

(3) When a facility or activity is owned by 1 person, but is operated by another person, it is the operator's duty to obtain an **operating license** ~~construction permit for a new facility or the expansion, enlargement, or alteration of an existing facility~~, except that the owner and titleholder of the land shall also sign the permit application.

(4) The director, or his or her designee, shall notify the applicant within 30 days after receipt of an **operating license** ~~construction permit~~ application **for a new facility or the expansion, enlargement, or alteration of an existing facility**. Such notification shall include the date of receipt and whether any required items of an administrative nature were missing. This notice will not include all areas where the application is technically incomplete.

(5) The director, or his or her designee, shall notify the applicant of the **operating license for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~ status within 75 days after the complete ~~construction permit~~ application is received.

(6) The director shall recommend approval or shall deny an **operating license** application-~~construction permit for a new facility or the expansion, enlargement, or alteration of an existing facility~~ within 120 days after the director receives a complete ~~construction permit~~ application.

(7) If the director intends to deny the **operating license** ~~construction permit~~ application **for a new facility or the expansion, enlargement, or alteration of an existing facility**, the director, or his or her designee, shall commence a public participation process in accordance with R 299.9511.

(8) ~~As directed by the site review board, the~~ director shall either prepare a draft ~~construction permit~~ **operating license for a new facility or the expansion, enlargement, or alteration of an existing facility** or deny the **operating license** ~~construction permit~~. ~~Upon being directed to do so, the~~ director shall commence a public participation process in accordance with R 299.9511.

(9) Applicants shall keep records of all data used to complete **operating license** ~~construction permit~~ applications **for new facilities or the expansion, enlargement, or alteration of existing facilities** and any supplemental information submitted under R 299.9504 for a period of not less than 3 years from the date the application is signed.

R 299.9510 Submittal and processing of operating license applications **for existing facilities**.

Rule 510. (1) Any person who requires an operating license **for an existing facility** under part 111 of the act shall complete, sign, and submit, to the director, an application for each license required under R 299.9502, as described in this rule. Persons with interim status currently authorized to operate without a license as provided by R 299.9502 shall apply for operating licenses when required by the director. Procedures for applications, issuance and administration of emergency operating licenses, and research licenses are found exclusively in R 299.9501.

(2) All applicants for operating licenses **for existing facilities** shall provide the information ~~set forth~~ in R 299.9508 to the director and shall use the application form provided by the director.

(3) The director, or his or her designee, shall not begin the processing of an operating license application **for an existing facility** until it is complete, except for emergency operating licenses under R 299.9501. An application for an operating license is complete when the director receives an application which includes that information required by R 299.9508. The completeness of any application for an operating license shall be judged independently of the status of any other permit or permit application for the same facility.

(4) When a facility or activity is owned by 1 person, but is operated by another person, it is the operator's duty to obtain an **operating license for the existing facility**, except that the owner and titleholder of the land shall also sign the license application.

(5) Any hazardous waste treatment, storage, or disposal facility with an effective operating license

shall submit a new license application under R 299.9508 not less than 180 days before the expiration date of the existing operating license, unless permission for a later date has been granted by the director. The director shall not grant permission for applications to be submitted later than the expiration date of the existing operating license.

(6) The director shall make a final decision on an operating license application **for an existing facility** within 140 days after the director receives a complete application.

(7) Before making a final decision on an operating license **for an existing facility**, the director shall, when authorized under the provisions of 40 C.F.R. part 271, complete the public participation process specified in R 299.9511. The director may extend the 140-day deadline of subrule (6) of this rule to complete this process.

(8) Applicants shall keep records of all data used to complete operating license applications **for existing facilities** and any supplemental information submitted under R 299.9508 for a period of not less than 3 years from the date the application is signed.

(9) The director may separately license treatment, storage, and disposal facility units at the same facility if these units have different owners or operators or if these units have significantly different impacts or potential impacts on public health and the environment.

R 299.9511 Public participation procedures.

Rule 511. (1) Except as provided for in subrule (2) of this rule, the requirements of this subrule apply to any person required to obtain ~~an construction permit or~~ operating license under the act or these rules. Applicants shall comply with all of the following requirements:

(a) Prior to submission of an application, the applicant shall hold at least 1 public meeting in order to solicit comments from the public and inform the public of the proposed hazardous waste management activities.

(b) The applicant shall post a sign-in sheet or otherwise provide an opportunity for the preapplication meeting attendees to provide their names and addresses.

(c) The applicant shall provide notice of the preapplication meeting not less than 30 days in advance of meeting. The applicant shall maintain documentation of the preapplication meeting notice and provide the documentation to the director upon request. The notice of the preapplication meeting shall comply with the following requirements:

(i) The notice shall include all of the following information:

(A) The date, time, and location of the meeting.

(B) A brief description of the purpose of the meeting.

(C) A brief description of the facility and proposed operations, including, the facility address or a map of the facility location.

(D) A statement encouraging persons to contact the facility not less than 72 hours before the meeting if they require special accommodations to participate in the meeting.

(E) The name, address, and telephone number of the applicant's contact person.

(ii) The notice shall be provided by the applicant in all of the following forms:

(A) Published as a display advertisement in a newspaper of general circulation in the county or equivalent jurisdiction that hosts the proposed location of the facility. If the director determines that publication in newspapers of general circulation in the adjacent counties or equivalent jurisdictions is necessary to inform the affected public, the director shall advise the applicant to provide a notice in those newspapers.

(B) Posted as a notice on a clearly marked sign at or near the facility. If the applicant places the sign on the facility property, the sign shall be large enough to be readable from the nearest point where the public would pass by the facility.

(C) Broadcast a notice at least once on 1 local radio station or television station. The applicant may employ another medium with prior approval from the director.

(d) The applicant shall provide a copy of the newspaper publication of the preapplication meeting notice to the director and the appropriate units of state and local government in accordance with 40 C.F.R. §124.10(c)(1)(x).

(2) The requirements of subrule (1) of this rule do not apply to any of the following:

(a) A renewal operating license application which does not propose any significant changes in facility operations. For the purposes of this subdivision, “significant changes” shall mean any changes that would qualify as a major modification under the provisions of R 299.9519.

(b) An operating license application which is submitted solely to address postclosure requirements or postclosure and corrective action requirements.

(c) An operating license modification submitted in accordance with the provisions of R 299.9519.

(d) ~~An construction permit or~~ operating license application submitted before the effective date of these rules.

(3) Except as provided for in subrule (4) of this rule, the director shall comply with all of the following requirements upon receipt of ~~an construction permit or~~ operating license application pursuant to the act or these rules:

(a) Within a reasonable period of time after the application is received, provide the facility mailing list and appropriate units of state and local government with notice in accordance with the provisions of 40 C.F.R. §124.10(c)(1)(x) that the application has been submitted to the department and is available for review. The notice shall include all of the following information:

(i) The name, address, and telephone number of the applicant’s contact person.

(ii) The name, address, and telephone number of the department’s contact.

(iii) The mailing address to which information, comments, and inquiries may be submitted to the department throughout the application review process.

(iv) The address to which persons may write to be placed on the facility mailing list.

(v) The location where a copy of the application and any supporting documents may be viewed and copied.

(vi) A brief description of the facility and proposed operations, including, the facility address or a map of the facility location, on the front page of the notice.

(vii) The date that the application was received by the department.

(b) Concurrent with the notice provided in subdivision (a) of this subrule, place the application and any supporting documents in a location accessible to the public in the vicinity of the facility or at an appropriate department office.

(4) The requirements of subrule (3) of this rule do not apply to either of the following:

(a) An operating license application which is submitted solely to address postclosure requirements or postclosure and corrective action requirements.

(b) A minor operating license modification as specified in the provisions of R 299.9519(5) and (9).

(5) The director shall comply with all of the following requirements upon receipt of ~~an construction permit or~~ operating license application pursuant to the act or these rules:

(a) Assess the need, on a case-by-case basis, for an information repository based on the following information:

(i) The level of public interest.

(ii) The type of facility.

(iii) The presence of an existing repository.

(iv) The proximity of the facility to the nearest copy of the administrative record.

(b) If it is determined that an information repository is needed at any time after submittal of the

application, notify the applicant that he or she shall establish and maintain an information repository in compliance with the following requirements:

(i) The information repository shall include all documents, reports, data, and information deemed necessary by the director to fulfill the purposes for which the repository is established. The director shall have the discretion to limit the contents of the information repository.

(ii) The information repository shall be located and maintained at a site selected by the applicant. However, if the director finds that the site selected by the applicant is unsuitable for the purposes or persons for which the information repository is established, due to problems with the location, hours of availability, access, or other relevant considerations, the director shall specify a more appropriate site for the information repository.

(iii) The information repository shall be maintained and updated by the applicant for the time period specified by the director.

(c) Specify the requirements for informing the public about the information repository. At a minimum, the director shall require the applicant to provide a written notice about the information repository to all individuals on the facility mailing list.

(d) Based on the factors outlined in subdivision (a) of this subrule, make decisions regarding the appropriateness of closing the information repository and notify the applicant accordingly.

(6) For applications for incinerators, boilers, or industrial furnaces, the director shall provide notice to all persons on the facility mailing list and to the appropriate units of state and local government in accordance with the provisions of 40 C.F.R. §124.10(c)(1)(x) announcing the following:

(a) The scheduled commencement and completion dates for the trial burn. The notice shall be mailed within a reasonable time period before the scheduled trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the department. The notice, which shall be issued before the applicant may commence the trial burn, shall contain all of the following information:

- (i) The name, address, and telephone number of the applicant's contact person.
- (ii) The name, address, and telephone number of the department's contact person.
- (iii) The location where the approved trial burn plan and any supporting documents may be reviewed and copied.

(iv) The expected time period for commencement and completion of the trial burn.

(b) The department's intention to approve the trial burn plan in accordance with the timing and distribution requirements of 40 C.F.R. §§270.62(b)(6) and 270.66(d)(3) as applicable. The notice shall contain all of the following information:

- (i) The name, address, and telephone number of the facility contact person.
- (ii) The name, address, and telephone number of the department's contact person.
- (iii) The location where the approved trial burn plan and any supporting documents may be reviewed and copied.

(iv) A schedule of the activities that are required **as part of an operating license for a new facility or the expansion, enlargement, or alteration of an existing facility, or for existing facilities**, prior to license issuance, including the anticipated time for department approval of the trial burn plan and the time period during which the trial burn will be conducted.

(7) Before making a final decision on a ~~major permit modification or~~ major license modification; ~~construction permit application~~, or operating license application, the director or his or her designee shall, when authorized pursuant to the provisions of 40 C.F.R. part 271, do the following:

(a) Prepare either a draft ~~major permit modification or~~ major license modification, ~~construction permit~~, operating license, or a notice of intent to deny.

(b) For major facilities, prepare a fact sheet pursuant to the provisions of R 299.9512 that briefly sets

forth the significant factual, methodological, and policy questions considered in preparing the draft ~~major permit modification or~~ major license modification, ~~construction permit,~~ operating license, or notice of intent to deny and send this fact sheet to the applicant and, upon request, any other person.

(c) Publish a public notice that a draft ~~construction permit,~~ operating license, or notice of intent to deny has been prepared and allow not less than 45 days for public comment.

(d) Publish a public notice that a draft major ~~permit modification or~~ major license modification has been prepared and allow not less than 60 days for public comment.

(e) Provide public notice of any public hearing scheduled pursuant to the provisions of R 299.9514 not less than 30 days before the hearing date.

(f) Prepare and make available to the public a response to comments on the draft ~~major permit modification or~~ major license modification, ~~construction permit,~~ operating license, or notice of intent to deny, which shall do all of the following:

(i) Specify which provisions of the draft ~~major permit modification or~~ major license modification, ~~construction permit,~~ or operating license have been changed, if any, and the reasons for the changes.

(ii) Briefly describe and respond to all significant comments raised during the public comment period or any hearing.

(iii) Indicate whether the comment period is to be reopened or extended ~~or, in the case of a construction permit application, whether the site review board is to be reconvened.~~

(iv) For notices of intent to deny, the reasons for denial.

(8) If the director decides to prepare a draft ~~construction permit or~~ operating license, he or she shall prepare a ~~draft permit or~~ license that contains the information specified in the provisions of R 299.9521.

(9) Draft major ~~permit modifications or~~ major license modifications, ~~permits,~~ and licenses that are prepared by the director pursuant to the provisions of this rule shall be accompanied by a fact sheet pursuant to the provisions of R 299.9512, publicly noticed pursuant to the provisions of R 299.9513, and made available for public comment. The director shall give notice of the opportunity for a public hearing pursuant to the provisions of R 299.9514, issue a final decision, and respond to comments pursuant to the provisions of R 299.9515.

R 299.9512 Fact sheets.

Rule 512. A fact sheet on a draft ~~construction permit,~~ operating license, or notice of intent to deny shall include all of the following information after the director is authorized under the provisions of 40 C.F.R. part 271 to administer and enforce part 111 of the act and these rules instead of the federal program:

(a) A brief description of the type of facility or activity that is subject to a final decision.

(b) The type and quantity of wastes, fluids, or pollutants that are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

(c) Reasons why any requested variances or alternatives to minimum standards do or do not appear justified.

(d) A description of the procedures for reaching a final decision, including all of the following:

(i) The beginning and ending dates of the comment period under R 299.9511(7)(c) and the address where comments will be received.

(ii) Procedures for requesting a hearing and the nature of that hearing.

(iii) Other procedures by which the public may participate in the final decision.

(e) Name and telephone number of a person to contact for more information.

R 299.9513 Public notices.

Rule 513. (1) Public notices of draft ~~construction permits,~~ operating licenses, notices of intent to deny, and public hearings shall be given by the following methods after the director is authorized under

the provisions of 40 C.F.R. part 271 to enforce and administer part 111 of the act and these rules in lieu of the federal program:

(a) By mailing a copy of the notice, fact sheet, ~~construction permit or~~ operating license application, and draft ~~construction permit or~~ operating license to all of the following entities:

- (i) The applicant.
- (ii) Any other agency which the director knows has issued or is required to issue an environmental permit for the same facility.
- (iii) Federal and state agencies with jurisdiction over **any of** the following:
 - (A) Fish, shellfish, and wildlife resources.
 - (B) Coastal zone management plans.
 - (C) The advisory council on historic preservation.
 - (D) State historic preservation officers.
 - (E) Other appropriate government authorities, including any affected states.
- (iv) Any unit of local government having jurisdiction over the area where the facility is proposed to be located.

(v) Each state agency having any authority under state law with respect to the construction or operation of such facility.

(b) By mailing a copy of the notice to persons on a facility mailing list developed pursuant to subrule (3) of this rule.

(c) By any method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(d) By publication of a notice in a daily or weekly major local newspaper of general circulation and by broadcasting over local radio stations.

(e) By posting the notice at the principal office of the department and any other locations considered appropriate by the director.

(2) All public notices required by this rule shall contain all of the following information:

- (a) Name and address of the office processing the ~~construction permit or~~ operating license.
 - (b) Name and address of the applicant and the facility at issue.
 - (c) A brief description of the business conducted at the facility or activity described in the application or draft ~~permit or~~ license.
 - (d) Name, address, and telephone number of a person or agency from whom interested persons may obtain further information, including copies of the draft ~~construction permit or~~ operating license, fact sheet, and application.
 - (e) A brief description of the comment procedures required by R 299.9511 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing and other procedures by which the public may participate in the final decision.
 - (f) For notices of public hearings, all of the following information:
 - (i) References to the date of previous public notices relating to the application.
 - (ii) Date, time, and place of the hearing.
 - (iii) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.
 - (iv) Any other information required by act 306.
 - (g) Any additional information considered necessary and proper.
- (3) The director or his or her designee shall develop a facility mailing list which includes the following persons:
- (a) Those who request in writing to be on the list.

- (b) Participants from past application proceedings under part 111 of the act in that area.
- (4) The director or his or her designee shall notify the public of the opportunity to be put on the mailing list through publication.

R 299.9514 Public hearings.

Rule 514. (1) During the public comment period provided under R 299.9511(7)(c), any interested person may submit written comments to the director on the draft ~~construction permit~~, operating license, or notice of intent to deny and may request a public hearing if no hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised at the hearing. All comments shall be considered in making the final decision on a public hearing and shall be answered as provided in R 299.9515.

- (2) The director or his or her designee shall hold a public hearing if 1 of the following occurs:
 - (a) The director finds, on the basis of responses, a significant degree of interest in a draft ~~construction permit~~, operating license, or notice of intent to deny.
 - (b) The director determines that a hearing may clarify 1 or more issues involved in the final decision on an ~~construction permit~~ or operating license.
 - (c) The director receives written notice of opposition to a draft ~~construction permit~~, operating license, or notice of intent to deny within 45 days of the notice required pursuant to R 299.9511(7)(c).
- (3) Public notice of the hearing shall be given as specified in R 299.9513.
- (4) During a public hearing, any person may submit oral or written statements and data concerning the draft ~~construction permit~~, operating license, or notice of intent to deny. The public comment period under R 299.9511(7)(c) shall automatically be extended to the close of any public hearing under this rule. The hearings officer may also extend the comment period by so stating at the hearing.
- (5) When possible, the director or his or her designee shall schedule a public hearing on an ~~draft construction permit~~, operating license, or notice of intent to deny at a location convenient to the nearest population center to the proposed facility.
- (6) A tape recording or written transcript of the hearing shall be made available to the public.

R 299.9515 Revisions based on public comment; response to comments.

Rule 515. (1) Upon completion of the public participation process for an ~~an construction permit or~~ operating license application, the director shall review all comments made during that process and make a final decision on the issuance of the ~~permit or~~ license under the provisions of act 306.

~~(2) If the director determines through the public participation process that significant errors were made in the construction permit process, the director shall reconvene the site review board to evaluate whether the action of the board should be modified.~~

~~(3) The director shall give public notice of actions taken under subrule (2) of this rule under the requirements of R 299.9513.~~

(4) At the time that any ~~construction permit or~~ operating license is issued, the director shall issue a response to comments which does both of the following:

- (a) Briefly describes and responds to all significant comments on the draft ~~permit or~~ license raised during the public comment period or during any hearing.
 - (b) Specifies which provisions, if any, of the draft ~~construction permit or~~ operating license have been changed in the final ~~permit or~~ license and the reason for the change.
- ~~(35) The director shall make the response to comments prepared under subrule (24) of this rule available to the public.~~

R 299.9516 ~~Construction permit and~~ Operating licenses; duration and effect.

Rule 516. (1) **An operating license for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~ is valid for 3 years from the date of issuance. The ~~permit~~ **license** remains valid for a period of not more than 10 years if construction is initiated within the 3-year period and proceeds in a continuous manner.

(2) Extensions of **an operating license for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~ may be granted by the director if unexpected construction delays occur beyond the control of the ~~licensee~~**permittee**.

(3) An operating license **for an existing facility** shall be effective for a fixed term of not more than 10 years. Each operating license for **an existing** land disposal facility shall be reviewed by the director 5 years after the date of license issuance or reissuance and shall be modified as necessary in accordance with the provisions of R 299.9519 and R 299.9520. The term of an operating license **for an existing facility** shall not be extended by modification beyond the maximum duration specified in this subrule.

(4) The director may issue any operating license **for an existing facility** for a duration that is less than the full allowable term under this rule.

(5) ~~An construction permit or~~ operating license may be modified or revoked during its term for cause as set forth in R 299.9519.

(6) The issuance of ~~an construction permit or~~ operating license does not relieve the owner or operator of his or her duty to comply with the statutory or regulatory requirements applicable to the facility that were enacted or promulgated after the ~~permit or~~ license was issued.

(7) The issuance of ~~an construction permit or~~ operating license does not convey any property rights of any sort or any exclusive privilege.

(8) The issuance of ~~an construction permit or~~ operating license does not authorize any injury to persons or property or invasion of other private rights or any infringement of other state or local law or regulations, except as otherwise specified in sections ~~24~~**3(5) and 25(5)** of part 111 of the act.

R 299.9517 Operating license for new facilities or the expansion, enlargement, or alteration of existing facilities; ~~construction permit~~ denial.

Rule 517. (1) The director shall deny an application for **an operating license for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~ if the proposed treatment, storage, or disposal facility would violate part 111 of the act or these rules.

(2) The applicant is on notice that the director shall deny the **operating license for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~ in either of the following situations:

(a) The applicant has not submitted the appropriate permit fee.

(b) The applicant has not submitted sufficiently detailed or accurate information to enable the director to make reasonable judgments as to whether the facility could comply with part 111 of the act and these rules.

(3) The director shall notify the applicant, in writing, of reasons for denial.

R 299.9518 Operating license for existing facilities; denial.

Rule 518. (1) The director shall deny an application for an operating license **for an existing facility** if the operation of the treatment, storage, or disposal facility for which the license is sought will violate part 111 of the act or these rules.

(2) The applicant is on notice that, in addition to any other of these rules, the director shall deny an operating license application **for an existing facility** if any of the following occur:

(a) Notwithstanding the receipt of the certification of construction required by sections ~~23~~**23(23) and 25(9)** of part 111 of the act, the facility has not been constructed according to the plans approved by the

director, the requirements of part 111 of the act or these rules, or the stipulations and conditions of the approved **operating license for an existing facility** ~~construction permit~~.

(b) The existing construction or operation of an existing facility or facility newly subjected to the licensing requirements of part 111 of the act and these rules presents a hazard to the public health or the environment.

(c) The applicant has not submitted sufficiently detailed or accurate information to enable the director to make reasonable judgments as to whether the license should be granted.

(3) The criteria specified for license revocation pursuant to the provisions of R 299.9519 are causes for denial of an operating license renewal application.

(4) When an application is denied, the applicant shall be notified, in writing, of the reasons for denial.

(5) If an initial operating license application is denied, the applicant shall cease all hazardous waste treatment, storage, limited storage, and disposal activities at the facility for which the application was submitted and perform closure in accordance with R 299.9613 for all hazardous waste treatment, storage, limited storage, and disposal units at the facility for which the application was submitted. Upon denial of an initial operating license application, the applicant may seek judicial review pursuant to the provisions of section 631 of act 236. Initial operating license applications shall include those applications for facilities for which interim status has been obtained pursuant to the provisions of 40 C.F.R. §270.70.

(6) If a renewal operating license application is denied, the applicant shall cease all hazardous waste treatment, storage, limited storage, and disposal activities at the facility for which the application was submitted and perform closure in accordance with R 299.9613 for all hazardous waste treatment, storage, limited storage, and disposal units at the facility for which the application was submitted, unless the applicant appeals the denial and initiates proceedings pursuant to the applicable provisions of act 236 or 306. If the applicant initiates proceedings pursuant to the applicable provisions of act 236 or act 306 and the denial is upheld pursuant to such proceedings, the applicant shall cease all hazardous waste treatment, storage, limited storage, and disposal activities at the facility for which the application was submitted and perform closure in accordance with R 299.9613 for all hazardous waste treatment, storage, limited storage, and disposal units at the facility for which the application was submitted.

R 299.9519 Modification, revocation, and suspension of ~~construction permits and~~ operating licenses during their terms.

Rule 519. (1) An owner or operator shall construct, operate, and maintain a facility pursuant to part 111 of the act, these rules, and the ~~construction permit or~~ operating license issued to the facility pursuant to part 111 of the act. Any deviation from the conditions of a ~~permit or~~ license or from approved plans shall require prior approval by the director, unless otherwise specified in this rule, and, if necessary, modification of the ~~permit or~~ license.

(2) If the director receives any information during the term of an ~~construction permit or~~ operating license, for example, inspects the facility, receives information submitted by the licensee as required in the license, receives a request for modification or revocation pursuant to this rule, or conducts a review of the license file, then he or she may determine if 1 or more of the causes listed in subrule (3) of this rule for modification or subrule (11) of this rule for revocation, or both, exist. If cause exists, the director may commence proceedings pursuant to act 306 to modify or revoke an ~~construction permit or~~ operating license accordingly, subject to the limitation of subrule (4) of this rule, and may request an updated application pursuant to R 299.9520, if necessary. If an operating license is modified, then only the conditions subject to modification are reopened. If an ~~construction permit or~~ operating license modification satisfies the criteria of subrule (5) of this rule for a minor modification, or if the director has not yet been authorized pursuant to 40 C.F.R. part 271, then the license may be modified pursuant to

subrule (6) of this rule. Otherwise, a draft license shall be prepared and other procedures specified in R 299.9511 followed.

(3) Any of the following are causes for modification of ~~an construction permit or~~ operating license:

(a) The causes listed pursuant to 40 C.F.R. §270.41(a), except 40 C.F.R. §270.41(a)(3).

(b) If the standards or regulations on which ~~the permit or~~ license was based have been changed by statute, through promulgation of new or amended standards or regulations, or by judicial decision after the ~~permit or~~ license was issued.

(c) To modify a monitoring program pursuant to R 299.9611 or R 299.9612.

(d) Cause exists for modification pursuant to subrule (5) of this rule and the director determines that modification is appropriate.

(e) The director has received notification pursuant to R 299.9522 of a proposed transfer of ownership or operation.

(4) The director shall not consider suitability of the facility location at the time of ~~construction permit or~~ operating license modification, suspension, or revocation, or at the time of reviewing ~~the an initial~~ operating license for a **new facility or the expansion, enlargement, or alteration of an existing facility** ~~that received a construction permit~~, unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of ~~permit or~~ license issuance. In addition, the director shall not modify **an operating license for a new facility or the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~ beyond what is authorized in the ~~license construction permit~~.

(5) The ~~permittee or~~ licensee may put into effect the following minor ~~permit modifications or minor~~ license modifications without following the procedures specified in R 299.9511, if the ~~permittee or~~ licensee complies with subrule (6) of this rule:

(a) Any of the following general ~~permit or~~ license modifications:

(i) An administrative and information change.

(ii) A correction of a typographical error.

(iii) Equipment replacement or upgrading with functionally equivalent elements, for example pipes, valves, pumps, conveyors, or controls.

(iv) A change in the frequency of, or procedures for, monitoring, reporting, sampling, or maintenance activities to provide for more frequent monitoring, reporting, sampling, or maintenance.

(v) A change in the interim compliance dates in the schedule of compliance if the prior written approval of the director is obtained.

(vi) A change in the expiration date of the ~~permit or~~ license to allow earlier ~~permit or~~ license termination if the prior written approval of the director is obtained.

(vii) A change in the ownership or operational control of a facility if the procedures specified in R 299.9522 are followed and if the prior written approval of the director is obtained.

(viii) Changes to remove operating license ~~or construction permit~~ conditions that are no longer applicable because the standards upon which they are based are no longer applicable to the facility if prior written approval from the director is obtained.

(b) Any of the following general facility modifications:

(i) A change to waste sampling or analysis methods to conform to agency guidelines or regulations.

(ii) A change to waste sampling or analysis methods to incorporate change associated with F039 (multisource leachate) sampling or analysis methods.

(iii) A change to waste sampling or analysis methods to incorporate changes associated with underlying hazardous constituents in ignitable or corrosive wastes if the prior written approval of the director is obtained.

(iv) A change in a sampling or analysis procedure or monitoring schedule if the prior written approval of the director is obtained.

(v) A change to analytical quality assurance/control plans to conform to department guidelines or rules.

(vi) A change in procedures for maintaining the operating record.

(vii) A change in the contingency plan to reflect the replacement of emergency equipment with functionally equivalent equipment, the upgrade of emergency equipment, or the relocation of emergency equipment listed.

(viii) A change to the training plan, other than those changes that affect the type of, or decrease the amount of, training given to employees.

(ix) The replacement of emergency equipment with functionally equivalent emergency equipment, the upgrade of emergency equipment, or the relocation of emergency equipment listed in the contingency plan.

(x) A change in the name, address, or phone number of a coordinator or another person or agency identified in the contingency plan.

(xi) A change in the procedures used to empty hazardous waste from transport vehicles and other containers.

(xii) A change that the construction quality assurance officer certifies will provide equivalent or better certainty that the unit components meet the design specifications. The certification shall be provided in the facility operating record.

(c) Any of the following groundwater protection modifications:

(i) Replacement of an existing well that has been damaged or rendered inoperable without changing the location, design, or depth of the well.

(ii) A change in groundwater sampling or analysis procedure or monitoring schedule if the prior written approval of the director is obtained.

(iii) A change in statistical procedure for determining whether a statistically significant change in groundwater quality between upgradient and downgradient wells has occurred if the prior written approval of the director is obtained.

(d) Any of the following changes to closure plans:

(i) A change in the estimate of maximum inventory of waste on site at any time during the active life of the facility, not to exceed the approved process design capacity of the facility if the prior written approval of the director is obtained.

(ii) A change in the closure schedule for any unit, a change in the final closure schedule for the facility, or extension of the closure period if the prior written approval of the director is obtained.

(iii) A change in the expected year of final closure, if other ~~permit~~ or license conditions are not changed and if the prior written approval of the director is obtained.

(iv) A change in procedure for the decontamination of facility equipment or structures if the prior written approval of the director is obtained.

(v) The addition of temporary tanks used for neutralization, dewatering, phase separation, or other separation with the prior written approval of the director.

(e) Any of the following postclosure modifications:

(i) A change in the name, address, or phone number of the contact person in the postclosure plan.

(ii) A change in the expected year of final closure if other ~~permit~~ or license conditions are not changed. ~~ie~~

(f) The addition of a roof to a container unit without altering the containment system.

(g) The replacement of a tank with a tank that is in compliance with the same design standards, has the same capacity of the replaced tank, and is in compliance with the same conditions in the ~~permit or license, or both~~.

(h) The replacement of a waste pile unit with another waste pile unit of the same design and capacity and which is in compliance with all the waste pile conditions in the ~~permit or license, or both~~.

(i) Any of the following land treatment modifications:

(i) A decreased rate of waste application.

(ii) A change in any condition specified in the ~~permit or license~~ for a land treatment unit to reflect the results of the land treatment demonstration if performance standards are met and if the prior written approval of the director is obtained.

(iii) A change to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, if the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and if the prior written approval of the director is obtained.

(j) Any of the following incinerator, boiler, or industrial furnace modifications:

(i) Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operation readiness after construction if the prior written approval of the director is obtained.

(ii) A change in the operating requirements specified in the ~~permit or license~~ for conducting a trial burn, if the change is minor and if the prior written approval of the director is obtained.

(iii) A change in the ranges of the operating requirements specified in the ~~permit or license~~ to reflect the results of the trial burn, if the change is minor and if the prior written approval of the director is obtained.

(iv) Substitution of an alternate type of nonhazardous waste fuel that is not specified in the ~~permit or license~~ if the prior written approval of the director is obtained.

(v) Technology changes necessary to meet the standards under 40 C.F.R. part 63, subpart EEE, if the owner or operator complied with the notification of intent to comply requirements of 40 C.F.R. §63.1210 that were in effect before October 11, 2000, and if prior written approval is obtained from the director.

(k) Technology changes necessary to meet the standards under 40 C.F.R. part 63, subpart EEE that were promulgated on October 12, 2005, if the owner or operator complied with the notification of intent to comply requirements of 40 C.F.R. §§63.1210(b) and 63.1212(a) and if prior written approval is obtained from the director.

(l) Waiver of operating and emission limits as necessary to support the transition to 40 C.F.R. part 63, subpart EEE, if all of the following requirements are met and if prior written approval is obtained from the director:

(i) The specific operating and emission limits for which the waiver is requested shall be identified in writing.

(ii) An explanation of why the changes are necessary to minimize or eliminate conflicts between the ~~permit or license~~ and the maximum achievable control technology standards compliance shall be provided in writing.

(iii) An explanation of how the revised provisions will be sufficiently protective shall be provided in writing.

(iv) If the modification is being requested in conjunction with maximum achievable control technology performance testing where the ~~permit or license~~ limits may only be waived during actual test events and pretesting, as defined under 40 C.F.R. §63.1207(h)(2)(i) and (ii), for an aggregate time not to exceed 720 hours of operation, the request shall be provided at the same time the test plans are

submitted to the director. The director may approve or deny the request contingent upon approval of the test plans.

(m) Any of the following burden reduction changes:

(i) The development of 1 contingency plan based on integrated contingency plan guidance pursuant to 40 C.F.R. §264.52(b).

(ii) Changes to recordkeeping or reporting requirements pursuant to 40 C.F.R. §§264.56(i), 264.113(e)(5), 264.196(f), 264.343(a)(2), 264.1061(b)(1) or (d), or 264.1062(a)(2), or R 299.9629(10).

(iii) Changes to the inspection frequency for tank systems pursuant to 40 C.F.R. §264.195(b).

(iv) Changes to a detection or a compliance monitoring program pursuant to 40 C.F.R. §§264.98(d), (g)(2), or (g)(3), or 264.99(f) or (g).

(6) For minor ~~permit modifications or minor~~ license modifications, the ~~permittee or~~ licensee shall do both of the following:

(a) Notify the director concerning the minor modification by certified mail or other means that establish proof of delivery. For minor modifications that do not require the prior written approval of the director, the notification shall be made within 7 calendar days after the change is put into effect. For minor modifications that do require the prior written approval of the director, the notification shall be made before the change is put into effect. The notification shall be in compliance with all of the following provisions:

(i) Contain a minor modification request for the director's approval, if required.

(ii) Specify the exact change or changes being made or to be made to the ~~permit or~~ license conditions or supporting documents referenced by the ~~permit or~~ license.

(iii) Identify that the modification is a minor modification.

(iv) Explain why the modification is necessary.

(v) Provide the applicable information required pursuant to R 299.9504 and R 299.9508, as appropriate.

(b) Send a notice of the minor modification to all persons on the facility mailing list that is maintained by the director pursuant to 40 C.F.R. §124.10(c)(viii) and the appropriate units of state and local government pursuant to 40 C.F.R. §124.10(c)(ix). The notification shall be made within 90 days after the change is put into effect. For minor modifications that require the prior written approval of the director, the notification shall be made within 90 calendar days after the director approves the minor modification request.

(7) Any person may request that the director review any minor ~~permit modification or minor~~ license modification. The director may reject for cause. The director shall inform the ~~permittee or~~ licensee by certified mail that a minor ~~permit modification or minor~~ license modification has been rejected and explain the reasons for the rejection. If a minor ~~permit modification or minor~~ license modification is rejected, the ~~permittee or~~ licensee shall comply with the existing ~~permit or~~ license conditions.

(8) For minor ~~permit modifications or minor~~ license modifications, the ~~permittee or~~ licensee may elect to follow the procedures specified in R 299.9511 instead of the ~~minor permit modification or minor~~ license modification procedures. The ~~permittee or~~ licensee shall inform the director of this decision in the notice that is required in subrule (6) of this rule.

(9) Any modification that is not specifically listed in subrule (5) of this rule shall be considered a major ~~permit modification or major~~ license modification and shall be subject to the requirements of R 299.9511 and R 299.9520, unless all of the following conditions are met:

(a) The licensee or ~~permittee~~ demonstrates, to the director's satisfaction, that a modification is in compliance with the criteria for a minor modification. In determining the appropriate classification for a modification, the director shall consider the similarity of the modification to other modifications listed in subrule (5) of this rule. Minor modifications apply to minor changes that keep the ~~permit or~~ license current with routine changes to the facility or its operation. These changes do not substantially alter the

~~permit or~~ license conditions or reduce the capacity of the facility to protect human health or the environment.

(b) The modification does not authorize the physical construction of a new treatment, storage, or disposal facility; the expansion or enlargement beyond the previously authorized design capacity or area of a treatment, storage, or disposal facility; or the alteration of the method of treatment or disposal previously authorized at a treatment, storage, or disposal facility to a different method of treatment or disposal.

(c) The classification of the modification is not less stringent than that allowed pursuant to RCRA.

(10) For major ~~permit modifications or major~~ license modifications, the ~~permittee or~~ licensee shall submit a major modification request to the director by certified mail or by other means that establish proof of delivery. The request shall be made before the change is put into effect. The request shall be in compliance with all of the following provisions:

(a) Describe the exact change or changes to be made to the ~~permit or~~ license conditions or supporting documents referenced by the ~~permit or~~ license.

(b) Identify that the modification is a major modification.

(c) Explain why the modification is necessary.

(d) Provide the applicable information required pursuant to R 299.9504 and R 299.9508, as appropriate.

(11) ~~An construction permit or~~ operating license may be revoked for any of the following reasons:

(a) Noncompliance by the ~~permittee or~~ licensee with part 111 of the act, these rules, or any condition of the ~~construction permit or~~ operating license.

(b) A determination that the licensed activity endangers human health or the environment.

(c) The owner or operator fails in the application or during the ~~construction permit or~~ operating license issuance process to disclose fully all relevant facts or at any time misrepresents any relevant facts.

(12) Requests for ~~construction permit or~~ operating license modification by a ~~permittee or~~ licensee and updated applications requested by the director pursuant to subrule (2) of this rule shall be made on forms provided by the director.

(13) An operating license may be suspended pursuant to act 306.

(14) The provisions of 40 C.F.R. part 63, subpart EEE and §§264.52(b), 264.56(i), 264.98(d) and (g)(2) and (3), 264.99(f) and (g), 264.113(e)(5), 264.195(b), 264.196(f), 264.343(a)(2), 264.1061(b)(1) and (d), 264.1062(a)(2), 270.41(a), except 40 C.F.R. §270.41(a)(3), are adopted by reference in R 299.11003.

R 299.9520 Procedures for modification or revocation of ~~construction permits and~~ operating licenses.

Rule 520. (1) Any interested person, including the licensee, may request the director to commence proceedings under act 306 to modify, suspend, or revoke ~~an construction permit or~~ operating license. All requests shall be in writing and shall contain facts or reasons supporting the request. If the director decides the request is not justified, he or she shall send the requestor a written response giving a reason for the decision.

(2) If the director decides to commence proceedings under act 306 to modify ~~an construction permit or~~ operating license under R 299.9519(2), he or she shall prepare a draft ~~construction permit or~~ operating license incorporating the proposed changes. The director may request submission of an updated ~~permit or~~ license application. During any modification proceeding, the ~~permittee or~~ licensee shall comply with all conditions of the existing ~~permit or~~ license until the ~~permit or~~ license is modified.

(3) If the director decides to commence proceedings under act 306 to revoke ~~an construction permit or~~ operating license under this rule, he or she shall issue a notice of intent to revoke and, when authorized under title II of the solid waste disposal act, follow those public participation procedures specified in

R 299.9511.

(4) If ~~an construction permit or~~ operating license is revoked, the director shall order the owner or operator to carry out closure procedures under section 51 of part 111 of the act and shall require the cessation of all activities at the facility subject to ~~permitting or~~ licensure under part 111 of the act, except those necessary for closure.

R 299.9521 Operating license conditions.

Rule 521. (1) All operating licenses shall contain all of the following general conditions:

(a) The general conditions contained in the provisions of 40 C.F.R. §270.30, except §270.30(l)(1) and (8). For purposes of these conditions the word "licensee" shall replace the word "permittee" and the term "part 111 of the act" shall replace the term "RCRA."

(b) The following additional conditions:

(i) The licensee shall not initiate an enlargement, alteration, or expansion beyond the previously authorized design capacity or area of a treatment, storage, or disposal facility without first obtaining **an operating license for the expansion, enlargement, or alteration of an existing facility** ~~construction permit~~ from the director.

(ii) For a facility being modified, the ~~permittee or~~ licensee shall not treat, store, or dispose of hazardous waste in the modified portion of the facility until 1 of the following conditions is met:

(A) The licensee has submitted, to the director, by certified mail or hand delivery, a letter signed by the ~~licensee permittee~~ and a registered professional engineer stating that the facility has been constructed or modified in compliance with the license and approved plans, and the director has inspected the modified facility and finds it is in compliance with the conditions of the license.

(B) Within 15 days of the date of submission of the letter in subparagraph (A) of this paragraph, the licensee has not received notice from the director of his or her intent to inspect, prior inspection is waived, and the licensee may commence treatment, storage, or disposal of hazardous waste.

(iii) The licensee shall obtain the approval of the director by a modification to the license before transferring ownership or operation of the facility to another person. The new owner or operator shall not accept hazardous waste at the facility until the license modification has been issued by the director.

(c) Other conditions determined to be necessary by the director to clarify procedures for license issuance, reissuance, modification, and revocation under act 306.

(2) In addition to conditions required in all licenses, the director shall establish conditions on a case-by-case basis for all of the following:

(a) Compliance schedules, if applicable, consistent with the provisions of 40 C.F.R. §270.33.

(b) Requirements for recording and reporting monitoring results, as specified in the provisions of 40 C.F.R. §270.31 and part 6 of these rules.

(c) Duration of the ~~permit or~~ license under R 299.9516.

(d) Allowable waste types.

(3) Each ~~construction permit and~~ operating license under part 111 of the act shall include conditions necessary to do the following:

(a) Achieve compliance with part 111 of the act and these rules, including each of the applicable requirements of parts 6 and 8 of these rules. In satisfying this provision, the director shall incorporate applicable requirements of part 6 directly into the ~~permit or~~ license or establish other conditions that are based on these requirements. For the purpose of this paragraph, an applicable requirement is a statutory or regulatory requirement which takes effect before final administrative disposition of a ~~permit or~~ license or any requirement which takes effect before the modification of a ~~permit or~~ license under R 299.9519.

(b) Protect human health and the environment.

(c) If, as a result of an assessment or other information, the director determines that conditions are necessary in addition to those required under 40 C.F.R. part 63, subpart EEE, or the the applicable requirements of parts 6 and 8 of these rules to ensure protection of human health and the environment, the director shall include those terms and conditions in the ~~construction permit~~ and operating license for a hazardous waste combustion unit.

(4) New, reissued, and, to the extent allowed under R 299.9519, modified ~~permits or~~ licenses shall incorporate each of the applicable requirements referenced in this rule.

(5) A condition of an ~~construction permit or~~ operating license shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements shall be given in the ~~permit or~~ license.

(6) The provisions of 40 C.F.R. part 63, subpart EEE, §270.30, except §270.30(1)(1) and (8), §270.31, and §270.33 are adopted by reference in R 299.11003.

R 299.9522 Transfer of ownership or operation.

Rule 522. (1) A ~~permit or~~ license may be transferred by the ~~permittee or~~ licensee to a new owner or operator only if the ~~permit or~~ license has been modified pursuant to the provisions of R 299.9519(3) or a minor modification made pursuant to the provisions of R 299.9519(5) to identify the new licensee ~~or permittee~~ and incorporate such other requirements as may be necessary pursuant to the provisions of part 111 of the act and these rules.

(2) Changes in the ownership or operational control of a facility which is authorized to operate pursuant to the provisions of part 111 of the act or these rules but which has not been issued an operating license pursuant to the provisions of part 111 of the act or these rules may be made if the new owner or operator submits a revised part a permit application not later than 90 days before the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the financial requirements of part 7 of these rules until the new owner or operator has demonstrated to the director that he or she is complying with the requirements of part 7 of these rules. The new owner or operator shall demonstrate compliance with the provisions of part 7 of these rules within 6 months of the date of the change in the ownership or operational control of the facility. Upon the new owner or operator demonstrating, to the director, compliance with the provisions of part 7 of these rules, the director, or his or her designee, shall notify the old owner or operator, in writing, that he or she no longer needs to comply with these requirements as of the date of the demonstration. All other interim status duties are transferred effective immediately upon the date of the change of ownership or operational control of the facility.

(3) The new owner or operator shall comply with all of the requirements of part 111 of the act and these rules and with the stipulations of previous operating licenses, ~~construction permits~~, or other agreements entered into by the previous owner or operator and the director.

(4) The responsibility for remedial measures to correct any environmental problem resulting from previous operations at the facility shall be assumed by the new owner or operator. This requirement shall be incorporated into the operating license for the new owner or operator.

R 299.9523 **Operating license** ~~Permit~~-fee schedule; **new, expanded, enlarged, or altered facilities.**

Rule 523. Table 501 reads as follows:

Table 501
~~Permit~~ Fee Schedule

Item

(1) Type of facility **being constructed, expanded, enlarged, or altered:**

Landfill, surface impoundment, land treatment, or waste pile	\$ 9,000.00
Incinerator or other treatment than described above	\$ 7,200.00
Storage**, other than storage associated with treatment or disposal activities which may be regulated under a single permit license are not subject to this fee.	\$ 500.00

			<u>Landfills, surface impoundments, land treatment, and waste piles*</u>	<u>Other treatment and storage</u>
(2) Site size	(a)	Less than 5 acres	\$100.00	\$ 50.00
	(b)	5 to 19 acres	170.00	100.00
	(c)	20 to 79 acres	240.00	100.00
	(d)	80 acres or more	320.00	100.00
(3) Projected waste volume per day	(a)	Less than 50 cubic yards or 10,000 gallons	60.00	50.00
	(b)	50 to 100 cubic yards or 10,000 to 20,000 gallons		80.00 100.00
	(c)	101 to 700 cubic yards or 20,000 to 140,000 gallons	100.00	100.00
	(d)	More than 700 cubic yards or more than 140,000 gallons	130.00	150.00
(4) Hydrogeological characteristics	(a)	Natural clay	40.00	
	(b)	Natural sand	60.00	
	(c)	Compacted clay	70.00	
	(d)	Artificially lined (other materials)	100.00	
	(e)	Any combination of above	100.00	
	(f)	Surface water on site	—	75.00

~~*Except waste piles meeting the requirements of 40 C.F.R. §264.250(c).~~

**Storage

R 299.9524 Remedial action plans.

Rule 524. (1) The requirements of this rule apply to remedial action plans and owners or operators seeking remedial action plans to authorize the treatment, storage, or disposal of hazardous remediation waste at a remediation waste management site.

(2) A remedial action plan shall only be issued for the area of contamination where the remediation wastes to be managed under the plan originated, or areas in close proximity to the contaminated area, except as allowed in limited circumstances under 40 C.F.R. §270.230.

(3) The requirements of part 5 of these rules do not apply to remedial action plans, with the exception of R 299.9516, unless otherwise specified in this rule.

(4) Notwithstanding any other provision of part 5 of these rules or this rule, any document that meets the requirements of this rule, constitutes ~~an construction permit or~~ operating license under part 111 of the act.

(5) A remedial action plan may include either of the following:

(a) A stand-alone document that includes only the information and conditions required in this rule.

(b) A part or parts of another document that includes information or conditions for other activities at the remediation waste management site, in addition to the information and conditions required by this rule.

(6) The treatment, storage, or disposal of hazardous remediation wastes under a remedial action plan as part of a cleanup compelled by federal or state cleanup authorities does not affect obligations that exist under such authorities in any way.

(7) The issuance of a remedial action plan to the owner or operator of a facility operating under interim status does not terminate the interim status of the facility.

(8) Treatment units that involve the combustion of hazardous remediation wastes at remediation waste management sites are not eligible for remedial action plans under this rule.

(9) An owner or operator of a facility already ~~permitted or~~ licensed under these rules may obtain approval of a remedial action plan for managing hazardous remediation waste at the facility by modifying the existing ~~permit or~~ license in accordance with the requirements of R 299.9519 and R 299.9520, except the requirements of R 299.9519(6)(a)(v) and (10)(d), thereby making the remedial action plan part of the ~~permit or~~ license. Requests to modify the ~~permit or~~ license shall include the information specified in 40 C.F.R. §270.110. Once incorporated into the ~~permit or~~ license, the remedial action plan is subject to the requirements for ~~permit or~~ license modification, revocation, reissuance, termination, and duration and effect provisions of part 5 of these rules.

(10) Owners or operators seeking a remedial action plan and owners or operators with existing remedial action plans shall comply with the requirements of this rule and 40 C.F.R. part 270, subpart H, except §§270.80, 270.85, 270.90, 270.155, 270.160, 270.190, and 270.195.

(11) Final decisions on remedial action plan applications and remedial action plans shall be subject to the appeal processes for operating licenses which are established under the act and act 306.

(12) A remedial action plan shall become effective 30 days after the director notifies the owner or operator and all persons which provided comments on the draft plan that the plan is approved, except under any of the following conditions:

(a) The director specifies a later effective date as part of the final decision.

(b) The owner or operator or another person has appealed the remedial action plan.

(c) No persons requested a change in the draft remedial action plan, in which case the plan becomes effective immediately when it is issued.

(13) Remedial action plans shall be issued for a fixed term, not to exceed 10 years, although the plans may be renewed upon approval by the director in fixed increments of not more than 10 years. Each remedial action plan for hazardous waste land disposal shall be reviewed by the director 5 years after the date of issuance or reissuance and shall be modified as necessary to ensure that the owner or operator is in compliance with the requirements of part 111 of the act and these rules. (14) The provisions of 40 C.F.R. part 270, subpart H, except §§270.80, 270.85, 270.90, 270.155, 270.160, 270.190, and 270.195 are adopted by reference in R 299.11003. For the purposes of this adoption the words "part 5 of these rules" shall replace the words "§§270.3 through 270.66," the words "parts 6 and 8 of these rules" shall replace the words "part 264 and 266," the words "this act and act 306" shall replace the words "§270.155," the words "R 299.9519 and R 299.9520" shall replace the words "§§270.40 through

270.43," "§§270.41 and 270.43," and "§270.43," The words "these rules" shall replace the words "parts 124, 260 through 266 and 270 of this chapter," the words "part 7 of these rules" shall replace the words "part 264, subpart H, of this chapter," the word "R 299.9511" shall replace the words "§§124.31, 124.32, and 124.33 of this chapter," and the word "R 299.9629" shall replace the word "§264.101."

PART 6. OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

R 299.9603 Location standards.

Rule 603. (1) Active portions of new treatment, storage, or disposal facilities or expansions, enlargements, or alterations of existing facilities shall not be located in any of the following areas:

- (a) Within 61 meters of a fault which had its displacement in Holocene time.
- (b) In a floodway designated by the department under part 31 of the act.
- (c) In a coastal high-risk area designated under part 323 of the act.
- (d) Over a sole-source aquifer or the recharge zone of a sole-source aquifer, unless the director grants an exemption to this provision based upon a demonstration by the applicant that the treatment, storage, or disposal facility will be located, designed, constructed, and operated in a manner that will prevent contamination of the aquifer.
- (e) Within that isolation distance from public water supplies specified by act 399.
- (f) In a wetland.

(2) Unless otherwise allowed by ~~an construction permit~~ or operating license under part 111 of the act or subrule (3) of this rule, the following isolation distances shall be maintained between the active portion of a new facility and adjacent commercial, residential, or recreational property lines:

- (a) For landfills, 150 meters.
 - (b) For other facilities, 60 meters.
- (3) For purposes of subrule (2) of this rule, adjacent commercial, residential, and designated recreational property shall not include public roads, railroads, or rights-of-way. However, the director may require greater isolation distances than those specified in subrule (2) of this rule, or allow lesser isolation distances, based on the following criteria:

- (a) The proposed design and operation of the facility.
- (b) The location of private water wells.
- (c) The potential for fugitive emissions in violation of part 55 of the act.
- (4) Treatment, storage, and disposal facilities shall not be located in a floodplain. The director may grant an exemption to the floodplain restrictions of this rule for treatment and storage facilities if either of the following conditions is met:

(a) The facility is designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a flood.

(b) The owner or operator can demonstrate to the director that procedures are in effect which will cause the waste to be removed safely, before floodwaters can reach the facility, to a location where the wastes will not be vulnerable to the floodwaters.

(5) Landfills, surface impoundments, and waste piles shall only be located in areas where there is not less than 6 meters of soil with a maximum permeability of 1.0×10^{-6} cm/sec at all points below and lateral to the liner or bottom of the landfill, surface impoundment, or waste pile, unless the owner or operator substitutes an engineered backup liner of equivalent design and demonstrates to the director that it provides equivalent environmental protection.

R 299.9604 Facility design and operating standards.

Rule 604. ~~(1)~~–The owner or operator of a treatment, storage, or disposal facility shall design, construct, operate, and maintain all of the following:

(a) A run-on control system capable of preventing flow onto the active portions of the facility during peak discharge from at least a 24-hour, 25-year storm.

(b) A runoff management system to collect and control at least the water volume resulting from active portions of the facility from a 24-hour, 100-year storm.

(c) Systems to prevent hazardous waste or hazardous waste constituents from escaping into the soil, directly or indirectly into surface water or groundwaters, or uncontrolled into drains or sewers.

~~(2) The director shall grant an exemption from the provisions of subrule (1)(a) and (b) of this rule for facilities other than landfills, surface impoundments, waste piles, and land treatment which are physically in existence at the time of initial licensing or permitting under part 111 of the act.~~

R 299.9605 General requirements for owners and operators.

Rule 605. (1) The owner or operator of a hazardous waste treatment, storage, or disposal facility shall comply with all of the requirements of 40 C.F.R. part 264, subpart B, except §264.15(b)(5), unless otherwise specified in this rule. **The owner or operator shall also provide copies of the notices required pursuant to 40 C.F.R. §264.12(a) to the regional administrator.** In addition to the notice requirements of 40 C.F.R. §264.12, the owner or operator shall, before transferring ownership or operation of a facility during its operating life or during any required postclosure care period, notify the new owner or operator, in writing, of the requirements of this part and part 5 of these rules.

(2) Hazardous waste transport vehicles and other containers leaving a designated facility shall be empty of hazardous waste in accordance with the provisions of R 299.9207 or accompanied by a manifest that is prepared in accordance with the provisions of these rules. The owner or operator shall develop and implement a procedure for ensuring compliance with this subrule. If a transport vehicle or other container is not empty, then the owner or operator shall either take all steps required in the procedure to ensure that the provisions of R 299.9207 are complied with or ensure that the hazardous waste that remains in the vehicle or containers is accompanied by a manifest that is prepared in accordance with the provisions of these rules when leaving the designated facility.

(3) The requirements of 40 C.F.R. part 264, subpart B do not apply to remediation waste management sites, other than those sites which are located at facilities that are subject to the ~~permitting or licensing~~ requirements under part 111 of the act and these rules because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes, provided that the owners or operators of the remediation waste management sites comply with the requirements of 40 C.F.R. §264.1(j)(1) to (13).

(4) The provisions of 40 C.F.R. part 264, subpart B, except §264.15(b)(5), and §264.1(j)(1) to (13) are adopted by reference in R 299.11003. For the purposes of this adoption, the words "regional administrator" shall be replaced by the word "director" and the word "§264.101" shall be replaced by the word "R 299.9629."

R 299.9607 Contingency plan and emergency procedures.

Rule 607. (1) Owners or operators of hazardous waste treatment, storage, and disposal facilities shall maintain a contingency plan for the facility and comply with 40 C.F.R. part 264, subpart D, regarding the plan and emergency procedures, unless otherwise specified in this rule.

(2) If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the owner or operator has knowledge that a spill has reached surface water or groundwater, then the owner or operator shall immediately notify the department's pollution emergency alerting system - telephone number 800-292-4706. The notification shall include all of the following information:

- (a) The name and telephone number of the person who is reporting the incident.
 - (b) The name, address, telephone number, and site identification number of the facility.
 - (c) The name, address, and telephone number of the owner or operator.
 - (d) The date, time, and type of incident.
 - (e) The name and quantity of the material or materials involved and released.
 - (f) The extent of injuries, if any.
 - (g) The estimated quantity and disposition of recovered material that resulted from the incident, if any.
 - (h) An assessment of actual or potential hazards to human health or the environment.
 - (i) The immediate response action taken.
- (3) The requirements of 40 C.F.R. part 264, subpart D do not apply to remediation waste management sites, other than those sites which are located at facilities that are subject to the ~~permitting or~~ licensing requirements under part 111 of the act and these rules because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes, provided that the owners or operators of the remediation waste management sites comply with 40 C.F.R. §264.1(j)(1) to (13).
- (4) The provisions of 40 C.F.R. part 264, subpart D, and §264.1(j)(1) to (13) are adopted by reference in R 299.11003. For the purposes of the adoption by reference of 40 C.F.R. §264.52(b), the words "~~construction permit or~~ operating license" shall replace the words "RCRA permit." For the purposes of the adoption of 40 C.F.R. §264.56(j) and §264.1(j)(1) to (13), the word "director" shall replace the words "regional administrator" and the word "R 299.9629" shall replace the word "§264.101," respectively.

R 299.9608 Use of manifest system.

Rule 608. (1) If a facility receives hazardous waste accompanied by a manifest, then the owner or operator, or his or her agent, shall comply with 40 C.F.R. §264.71(a) and return a legible copy of the manifest to the director or his or her designee within a period of 10 days after the end of the month in which the waste was received. If the generator state and the destination state are the same, the owner or operator, or his or her agent, shall only submit 1 copy of the manifest to the director or his or her designee.

(2) If a facility receives a bulk shipment of hazardous waste from a rail or water transporter which is accompanied by a shipping paper containing all the information required on the manifest, excluding the site identification numbers, generator's certification, and signatures, then the owner or operator, or the owner or operator's agent, shall comply with 40 C.F.R. §264.71(b) and return a legible copy of the manifest to the director or his or her designee within a period of 10 days after the end of the month in which the waste was received. If the generator state and the destination state are the same, the owner or operator, or his or her agent, shall only submit 1 copy of the manifest to the director or his or her designee.

(3) If a shipment of hazardous waste is initiated from a facility, then the owner or operator of that facility shall comply with the requirements of part 3 of these rules.

(4) Within 3 working days of the receipt of a shipment subject to R 299.9312, the owner or operator shall provide a copy of the tracking document bearing all required signatures to the ~~notifier exporter~~, to the Office of Enforcement and Compliance Assurance, Office of **Federal Activities, International Compliance Assurance, Enforcement Planning, and Targeting and Data** Division (225422A), U.S. Environmental Protection Agency, ~~401 M Street~~ **1200 Pennsylvania Avenue**, SNW, Washington DC 20460, and to competent authorities of all other concerned countries. The owner or operator shall maintain the original copy of the tracking document at the facility for not less than 3 years from the date of signature.

(5) The owner or operator shall determine if the consignment state for a shipment regulates any additional wastes, beyond those regulated federally, as hazardous wastes under its state hazardous waste program. The owner or operator shall also determine if the consignment state or the generator state requires the owner or operator to submit any copies of the manifests to these states.

(6) Upon discovering a significant manifest discrepancy, as defined in 40 C.F.R. §264.72(a) and (b), the owner or operator shall comply with 40 C.F.R. §264.72(c) to (g) and distribute copies of the manifest pursuant to subrules (1) and (2) of this rule.

(7) The requirements of this rule do not apply to owners or operators of off-site facilities with respect to waste military munitions exempted from manifesting requirements under R 299.9818.

(8) The provisions of 40 C.F.R. §§264.71(a) and (b) and 264.72 are adopted by reference in R 299.11003. For the purposes of these adoptions, the word "director" shall replace the words "regional administrator," the words "site identification number" shall replace the words "EPA identification number," the term "R 299.9207" shall replace the term "40 CFR 261.7(b)," and the term "R 299.9304(1)(a)" shall replace the term "40 CFR 262.20(a)."

R 299.9609 Operating record; availability; retention and disposition of records.

Rule 609. (1) An owner or operator shall keep a written operating record at his or her facility, or in an alternate location approved by the director or the director's designee. The following information shall be recorded as it becomes available and shall be maintained in the operating record until closure of the facility:

(a) The information required by the provisions of 40 C.F.R. §264.73(b)(1) to (4), (6), (8), (10), (18), and (19), and 40 C.F.R. part 264, appendix I.

(b) Any other records required to be kept in the operating record by ~~an construction permit or~~ operating license.

(2) The information required by the provisions of 40 C.F.R. §264.73(b)(5), (7), (9), and (11) to (17) shall be recorded as it becomes available and shall be maintained in the operator record in accordance with the time periods specified therein.

(23) All records, including plans, required under this part shall be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the department who is duly designated by the director.

(34) The retention period for all records required under this part is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the director or administrator.

(45) A copy of records of waste disposal locations and quantities under subrule (1) of this rule shall be submitted to the director, or his or her designee, the regional administrator, and local land authority upon closure of the facility.

(56) The provisions of 40 C.F.R. §264.73 and part 264, appendix I, are adopted by reference in R 299.11003.

R 299.9610 Reporting.

Rule 610. (1) The owner or operator shall provide to the director or the director's designee the data necessary for the department to prepare and submit Michigan's hazardous waste report as required to the EPA. The owner or operator shall submit the data ~~on a form and~~ in a format specified by the director or the director's designee. The data shall be acquired from ~~the information manifests as required in~~ Parts 3 and 6 of the rules, the ~~monthly~~ operating reports required in subrule (3) of this rule, and other reporting mechanisms used by the director to obtain the information specified in 40 C.F.R. §264.75(a) to

(j), and by the EPA as part of a federal information collection request published in conjunction with 40 C.F.R. §264.75(a) to (j).

(2) If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest or without an accompanying shipping paper as described in 40 C.F.R. §263.20(e), and if the waste is not excluded from the manifest requirement by R 299.9205, then the owner or operator shall prepare and submit a single copy of a report to the director or his or her designee within 15 days after receiving the waste. The unmanifested waste report shall be submitted on a form approved by the director. The report shall be designated "Unmanifested Waste Report" and shall include all of the following information:

- (a) The site identification number, name, and address of the facility.
- (b) The date the facility received the waste.
- (c) The site identification number, name, and address of the generator and the transporter, if available.
- (d) A description and the quantity of each unmanifested hazardous waste and facility received.
- (e) The method of treatment, storage, or disposal for each hazardous waste.
- (f) The certification signed by the owner or operator of the facility or the owner or operator's authorized representative.

(g) A brief explanation of why the waste was unmanifested, if known.

(3) The owner or operator of a hazardous waste treatment or disposal facility on the site of generation shall submit **an operating** ~~monthly~~ report to the director or his or her designee, on forms provided by the director, which summarizes all managed hazardous wastes treated or disposed of, including the hazardous waste number of the wastes, quantity, method of treatment or disposal, and dates of treatment or disposal. The report shall be submitted to the director within 10 days after the end of **March, June, September, and December of each year, unless more frequent submissions are required by the director or his or her designee each month.**

(4) All reports shall be signed and certified pursuant to 40 C.F.R. §270.11, which is adopted by reference in R 299.11003.

(5) The provisions of 40 C.F.R. §263.20(3) are adopted by reference in R 299.11003.

R 299.9612 Groundwater monitoring.

Rule 612. (1) Owners or operators of facilities that treat, store, or dispose of hazardous waste shall comply with the requirements of R 299.9629 and 40 C.F.R. part 264, subpart F, excluding the provisions of §§264.94(a)(2) and (3), 264.94(b) and (c), 264.100, and 264.101 and except as follows:

(a) The director may, in the facility operating license, extend the point of compliance into groundwaters other than the uppermost aquifer.

(b) In addition to wells required by the provisions of 40 C.F.R. part 264, subpart F, the owner or operator shall install wells at appropriate locations and depths to yield groundwater from any saturated zone other than the uppermost aquifer when such sampling will provide an earlier warning of failure from a hazardous waste management unit. All wells installed to monitor or evaluate groundwater shall be constructed and abandoned in accordance with the well installation and well decommissioning procedures in ASTM standards D5092-904 (2010)e1 and D5299-992, or a plan approved by the director.

(c) The director may require sampling and analysis for secondary monitoring parameters at frequencies specified in the facility operating license. If the owner or operator determines that there is a statistically significant increase in 1 or more secondary monitoring parameters, then he or she shall do all of the following:

- (i) Notify the director or his or her designee of the finding immediately.
- (ii) Sample for both primary and secondary monitoring parameters, taking not less than 4 replicate measurements on each sample at each well.

(iii) Redetermine if a statistically significant increase has occurred in either primary or secondary monitoring parameters and immediately notify the director or his or her designee of the results.

(d) The concentration limit of a hazardous constituent established pursuant to the provisions of 40 C.F.R. §264.94(a) shall not exceed the background level of that constituent in groundwater, unless a concentration limit which is not less stringent than that allowed pursuant to the provisions of RCRA has been established pursuant to the provisions of part 31 of the act or part 201 of the act.

(e) To determine whether background values or concentration limits have been exceeded pursuant to the provisions of 40 C.F.R. §264.97(h), the owner or operator shall use a statistical test approved by the director in the facility operating license and shall determine if the difference between the mean of the constituent at each well, using all replicates taken, and either of the following is significant:

(i) The background value of the constituent as defined in the operating license.

(ii) The mean value of 1 year's initial sampling for the well itself where the 1-year period is specified by the director in the facility operating license.

(f) The director may require compliance monitoring and corrective action pursuant to the provisions of 40 C.F.R. §264.99, R 299.9629, part 31 of the act, and part 201 of the act to be conducted pursuant to a consent agreement or other legally binding agreement rather than pursuant to an operating license.

(g) Nothing in the provisions of 40 C.F.R. part 264, subpart F, or this rule shall restrict the director from taking action pursuant to the provisions of section 48 or 51 of part 111 of the act.

(h) The owner or operator has been granted a waiver by the director pursuant to the provisions of R 299.9611(3).

(2) The provisions of 40 C.F.R. part 264, subpart F and 40 C.F.R. part 264, appendix IX, excluding the provisions of §§264.94(a)(2) and (3), 264.94(b) and (c), 264.100, and 264.101, are adopted by reference in R 299.11003. For the purposes of this adoption, the word "director" shall replace the term "regional administrator" or "administrator," the word "department" shall replace the word "agency," the words "part 1 of these rules" shall replace the word "40 C.F.R. §270.1(c)(7)," the words "R 299.9612 and R 299.9629" shall replace the words "40 C.F.R. §§264.91 through 264.100," and the words "~~construction permit or~~ operating license" shall replace the word "permit."

R 299.9615 Tank systems.

Rule 615. (1) Owners or operators who use tank systems to treat or store hazardous waste shall comply with all of the requirements of 40 C.F.R. part 264, subpart J, except as provided in subrule (4) of this rule.

(2) Owners or operators of tank systems that are not in compliance with the containment requirements of 40 C.F.R. §264.193(b) to (f) shall do all of the following until either the tank system is brought into compliance with the standards of 40 C.F.R. §264.193(a) or until a variance is obtained as provided by 40 C.F.R. §264.193(h):

(a) Ensure that aboveground tank systems that are used for the treatment or storage of liquid hazardous wastes, or hazardous wastes which could generate free liquids during storage, are located in areas which are paved, diked, curbed, or otherwise structurally enclosed so as to be able to contain not less than 100% of the largest tank system within the enclosed area. Where the hazardous wastes that are stored are incompatible with the materials of construction of tank systems within the enclosed area, or where the tank systems are interconnected so that a loss from one tank system may lead to losses in other tank systems, the owner or operator shall ensure that all tank systems are structurally enclosed so as to be able to contain not less than 100% of the liquid portion of the material being stored in all tank systems.

(b) For underground tank systems that are used for the treatment or storage of liquid hazardous wastes, or hazardous wastes that could generate free liquids, do all of the following:

(i) Provide adequate secondary containment and a leachate collection and withdrawal system to

contain any release of hazardous wastes or hazardous waste constituents from the tank system.

(ii) Conduct a complete inventory of hazardous wastes in the tank system not less than twice a month.

(iii) Conduct leachate sampling and analysis at least once a year. If the inventories required pursuant to paragraph (ii) of this subdivision indicate a loss of waste, leachate sampling and analysis shall be performed within 24 hours of the discovery of the loss.

(3) All tank systems which are put into service after July 14, 1989~~96~~, or which are upgraded pursuant to the provisions of 40 C.F.R. §264.193 shall be assessed in accordance with the provisions of 40 C.F.R. §264.192(a)(3) and provided with the necessary corrosion protection as determined pursuant to the assessment.

(4) All tank systems shall be designed, constructed, operated, and maintained in compliance with the requirements of R 29.5101 to R 29.5504 pursuant to the provisions of act 207.

(5) Owners or operators shall label tank systems in accordance with the provisions of NFPA standard no. 704.

(6) The director may waive the interim secondary containment requirements of subrule (2) of this rule for wastewater treatment units and elementary neutralization units based upon an assessment of the hydrogeological aspects of the site with respect to the provisions of part 31 of the act, the nature and volume of the waste treated or stored, and the location and nature of the facility.

(7) NFPA standard no. 704 is adopted by reference in R 299.11002. The provisions of 40 C.F.R. part 264, subpart J, are adopted by reference in R 299.11003. For the purposes of this adoption, the word "director" shall replace the words "regional administrator" and "administrator" and the words "~~construction permit or~~ operating license application" shall replace the words "part B."

R 299.9616 Surface impoundments.

Rule 616. (1) Owners or operators of facilities that use surface impoundments to treat or store hazardous waste shall comply with the requirements of 40 C.F.R. part 264, subpart K, except 40 C.F.R. §264.221(f). For new surface impoundments or replacements or lateral expansions of existing surface impoundments where liners are constructed of materials that might allow wastes to migrate into the liner, such as compacted clay, the liner shall, at a minimum, be constructed in accordance with the standards for clay liners contained in R 299.9620(2) and shall be designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil, groundwater, or surface water at any time during the active life, including the closure period, of the impoundment.

(2) New surface impoundments or replacements or lateral expansions of existing surface impoundments shall contain a leak detection, containment, and removal system designed, constructed, operated, and maintained in accordance with R 299.9622, unless exempted under that rule.

(3) The owner or operator of an existing surface impoundment shall not close the impoundment as a landfill in accordance with the provisions of 40 C.F.R. §264.228 unless both of the following provisions are complied with:

(a) The site of the surface impoundment meets the location standards of R 299.9603 or can be engineered to meet these standards.

(b) The director does either of the following:

(i) Determines that all contaminated subsoils cannot be practicably removed.

(ii) Issues an **operating license** ~~construction permit~~ for a facility alteration.

(4) The provisions of 40 C.F.R. part 264, subpart K, except 40 C.F.R. §264.221(f), are adopted by reference in R 299.11003.

R 299.9620 Liner requirements for landfills, surface impoundments, and waste piles.

Rule 620. (1) A liner system shall be located, designed, constructed, and operated so that there is no

direct contact between the liners and groundwater in a saturated zone such that moisture content would adversely affect the structural and containment integrity of the liners.

(2) The primary liner for a landfill shall be a composite liner. The composite liner shall be designed to have a flexible membrane liner meeting the requirements of 40 C.F.R. 264, subpart N, directly over compacted clay which is a minimum of 150 centimeters thick and meets the requirements of subrule (3) of this rule.

(3) A compacted clay liner that is designed to meet the requirements of 40 C.F.R. §§264.221, 264.251, and 264.301, which are adopted by reference in R 299.11003, or R 299.9619 shall meet all of the following requirements for that clay liner:

(a) Comply with the criteria for a unified soil classification of CL or CH as determined by the provisions of ASTM standard D2487-~~6911~~-(reapproved 1975).

(b) Have more than 25% of the soil particles be less than 5 microns in size.

(c) Be placed in horizontal lifts of not more than 25 centimeters and be uniformly and thoroughly compacted to the standards approved in the design. The lift thickness shall not be more than 25 centimeters (six inches) after compaction. However, the material shall not be compacted to less than 90% of the maximum dry density, as determined by the modified proctor test described in the provisions of ASTM standard D1557-91~~2~~, or 95% of the maximum dry density, as determined by the standard proctor test described in the provisions of ASTM standard D698-91~~2~~, which are adopted by reference in R 299.11001, and the moisture content shall be within a range of -2% to +5% of the optimum moisture content.

(d) Have a maximum permeability coefficient of 1.0×10^{-7} cm/sec or less at all points.

(4) The waste pile or landfill base floor shall be graded to a minimum slope of 2% in directions perpendicular to the leachate collection pipes to promote drainage. The leachate pipes shall be laid on a slope of 1% or more in a direction to intercept liquid flow. The director may approve an alternate design to those specified in this subrule if the owner or operator demonstrates to the director that such design, together with location characteristics, complies with both of the following requirements:

(a) The alternate design will prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively the design requirements specified in this subrule.

(b) The alternate design will allow the detection of leaks of hazardous constituents through the top liner at least as effectively as the design requirements specified in this rule.

(5) Liner systems and leachate collection systems shall be designed to prevent the damage of the materials of both systems in the event of differential settlement of the foundation under worst case conditions.

R 299.9621 Quality control for landfills, surface impoundments, and waste piles.

Rule 621. (1) Owners or operators of landfills, surface impoundments, and waste piles shall conduct a quality control program during construction which shall assure all of the following:

(a) That the natural clay base meets or exceeds the thickness and permeability requirements of R 299.9603(5), by doing either of the following:

(i) Obtaining soil borings and determining the natural moisture content as determined by ASTM standard D2216-~~10~~, grain size distribution (sieve and hydrometer) as determined by ASTM standards D421-~~85~~ and D422-63, classification by the unified soil classification system as determined by ASTM standard D2487-~~6911~~-(reapproved in 1979), and Atterburg limits of the soil as determined by ASTM standard D4318-~~9410~~ at varying depths every 100 feet, and the permeability of an undisturbed sample every 200 feet as determined by ASTM standard D5084-~~910~~.

(ii) Utilizing resistivity surveys to replace or supplement borings specified in paragraph (i) of this subdivision. Such resistivity surveys shall employ an electrode spacing to give an effective depth of

penetration. A sufficient number of stations shall be used to insure that complete coverage to the edge of the waste management area is provided and correlation with borings or wells is obtained.

(b) That the natural clay base provides an adequate sub-base for overlying liners and leachate collection and removal systems, by evaluating the subgrade conditions for stability and correcting wet or unstable areas.

(c) That compacted clay liners meet or exceed the requirements of R 299.9620(2), by doing all of the following:

(i) Constructing the liner such that the bottom liner and the side wall liner (dike) will be continuous and completely keyed together at all construction joints.

(ii) During winter construction, removing all ice and snow before placing the liner and not using frozen soil in any part of liner.

(iii) Determining the field density-moisture of the liner material by utilizing the provisions of ASTM standard D2922-78~~04e1~~ for each 1,000 cubic yards placed, with a minimum of 1 test per day of construction or layer of clay placed.

(iv) Determining the particle size distribution (sieve and hydrometer) according to ASTM standards D421-85 and D422-63, Atterburg limits according to ASTM standard D4318-94~~10~~, and natural moisture content according to ASTM standard D2216-10 of random samples of liner material from each 5,000 cubic yards of material placed.

(v) Redetermining the density of liner materials by the modified proctor test, ASTM standard D1557-91~~2~~, when the texture of the soil changes and every 5,000 cubic yards placed.

(vi) Determining the permeability with water of a soil sample every 10,000 cubic yards placed by using ASTM standard D5084-91~~0~~, which is adopted by reference in R 299.11001, or other method approved by the director on a sample that is not less than 2.8 inches in diameter.

(vii) Verifying liner thickness and subgrade slope by a final elevation check to ensure that all of the following requirements are met:

(A) The final elevation shall be within plus or minus 0.2 feet of the approved plans.

(B) The slope reduction of the subgrade shall not be greater than 10% of the approved slopes.

(C) The final clay liner thickness shall not be less than the approved thickness at any point.

(d) That synthetic liners are properly installed, by doing all of the following:

(i) Properly preparing the foundation for the liner by doing all of the following:

(A) Compacting to the requirements of R 299.9620.

(B) Grading the foundation to a smooth and true line.

(C) Grading consistent with approved plans.

(D) Grading the foundation to be free from stones or deleterious material.

(E) Removing any vegetation from the foundation before installation of the liner.

(ii) Insuring that field seaming is done under the direction of a registered professional engineer and when weather conditions are favorable for installation.

(iii) Insuring that field seams, joints, and mechanical seals are properly made by wiping contact surfaces clean of dirt, dust, moisture, or other foreign material, assuring that seaming is done in accordance with manufacturer specifications, and testing all field seams by nondestructive tests approved by the director.

(iv) Recording the ambient temperature and liner temperature hourly during liner installation or field seaming.

(e) That leachate collection and leak detection, collection, and removal systems are installed such that the requirements of this rule are met, by doing both of the following:

(i) Making elevation checks at least every 200 feet to verify the appropriate thickness of granular material.

(ii) Sampling randomly at least every 5,000 cubic yards placed to verify the required aggregate classification.

(2) The quality control program required by subrule (1) of this rule shall be documented by written daily records of all work and tests performed during construction. All daily records shall be kept in the operating record for the facility and be made available for inspection by the director or his or her authorized representative.

(3) ASTM standards D421-~~85~~, D2216-~~10~~, D2487-~~69~~~~11~~, D1557-~~91~~~~2~~, D422-63, D2434-68, D4318-~~94~~~~10~~, and D5084-~~91~~~~0~~ are adopted by reference in R 299.11001.

R 299.9623 Incinerators.

Rule 623. (1) Owners and operators of facilities that incinerate hazardous waste shall comply with all requirements of this rule, except as subrule (2) of this rule provides otherwise. The following facility owners or operators are considered to incinerate hazardous waste:

(a) Owners or operators of hazardous waste incinerators as defined in R 299.9104.

(b) Owners or operators who burn hazardous waste in boilers or in industrial furnaces to destroy the wastes.

(2) Except as noted in this subrule and subrule (3) of this rule, part 6 of the rules does not apply to owners and operators of new hazardous waste incinerators that become subject to the ~~permit or~~ license requirements of these rules after October 12, 2005, or to owners or operators of existing facilities that incinerate hazardous waste if the owner or operator demonstrates compliance with the air emission standards and limitations in 40 C.F.R. part 63, subpart EEE, by conducting a comprehensive performance test and submitting to the director a notification of compliance under 40 C.F.R. §§63.1207(j) and 63.1210(d) which documents compliance with the requirements of 40 C.F.R. part 63, subpart EEE. Nevertheless, even after this compliance demonstration is made, the operating license conditions that are based on the standards of part 6 of the rules will continue to be in effect until they are removed from the operating license or the operating license is terminated or revoked, unless the operating license expressly provides otherwise. The director may apply this subrule and subrule (3) of this rule, on a case-by-case basis, for collecting information pursuant to R 299.9504(18) and (20) and R 299.9521(3)(b) and (c).

(3) The maximum achievable control technology standards of 40 C.F.R. part 63, subpart EEE, do not supersede any of the following requirements:

(a) R 299.9601, R 299.9605 to R 299.9610, R 299.9612, R 299.9613, R 299.9630, R 299.9631, and part 7 of these rules.

(b) The particulate matter standard of 40 C.F.R. §264.343(c), if the owner or operator elects to comply with the alternative to the particulate standard of 40 C.F.R. §§63.1206(b)(14)-and 63.1219(e).

(c) The following requirements remain in effect for startup, shutdown, and malfunction events even if a person elects to comply with 40 C.F.R. §270.235(a)(1)(i) to minimize emissions of toxic compounds from these events:

(i) The requirements of 40 C.F.R. §264.345(a) which require that an incinerator operate pursuant to the operating requirements specified in the operating license.

(ii) The requirements of 40 C.F.R. §264.345(c) which require compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes.

(4) Owners and operators of facilities that incinerate hazardous waste shall comply with 40 C.F.R. part 264, subpart O, except 40 C.F.R. §264.340(a) to (d) and 264.344(a)(2) and (b).

(5) The owner or operator of a hazardous waste incinerator shall burn only wastes specified in his or her operating license and only under operating conditions specified for those wastes under this rule,

except in approved trial burns or trial operations. Other hazardous wastes may be burned only after operating conditions have been specified in ~~an construction permit or~~ operating license. Operating requirements for new wastes may be based on either trial burn results or alternative data included with the ~~construction permit or~~ operating license application.

(6) ~~If the owner or operator of a new hazardous waste incinerator conducts a trial burn before application for an operating license,~~ **The operating license for a new incinerator or the expansion, enlargement, or alteration of an existing incinerator** ~~construction permit for the hazardous waste incinerator~~ shall establish appropriate conditions for each of the applicable requirements of this part, including, but not limited to, allowable waste feeds and operating conditions necessary to meet the requirements of 40 C.F.R. §264.345 and sufficient to comply with 40 C.F.R. §264.344(c)(1) and (2) for the period before and during the trial burn.

(7) The director may require trial operation of an incinerator and the submittal of a trial operations plan containing the information specified in 40 C.F.R. §270.62(b)(2) under the following circumstances:

- (a) Before the renewal of an incinerator's operating license under part 111 of the act.
- (b) Before the licensing of an incinerator newly subjected to the license requirements of part 111 of the act and these rules.
- (c) Before the approval of new waste types through an operating license modification.
- (d) The director has evidence that an incinerator may be emitting hazardous constituents in quantities which violate part 55 of the act or these rules.

(8) The requirements of 40 C.F.R. §270.62(a) to (d) shall apply to facilities incinerating hazardous waste, except as otherwise provided in these rules.

(9) An incinerator burning hazardous waste shall be designed, constructed, and maintained so that it will comply with part 55 of the act.

(10) The director may, in addition, specify one or more principal organic hazardous constituents from the lists of hazardous waste or hazardous constituents contained in tables 201 to 206 of these rules.

(11) The provisions of 40 C.F.R. part 63, subpart EEE; 40 C.F.R. part 261, appendix VIII; 40 C.F.R. part 264, subpart O, except 40 C.F.R. §264.340(a) to (d) and §264.344(a)(2) and (b); and 40 C.F.R. §§270.62(a) to (d) and 270.235(a)(1)(i), are adopted by reference in R 299.11003. For the purposes of this adoption, the references to "§124.10" shall be replaced with "R 299.9511," "270.19" shall be replaced with "R 299.9504," "§270.42" shall be replaced with "R 299.9519," and the word "permit" shall be replaced with "operating license."

R 299.9629 Corrective action.

Rule 629. (1) Owners or operators of facilities that treat, store, or dispose of hazardous waste shall conduct corrective action as necessary to protect the public health, safety, welfare, and the environment pursuant to a corrective action program approved by the director, unless otherwise specified in this rule. The corrective action program shall be conducted as follows:

(a) Owners or operators of facilities that apply for, or have been issued, an operating license pursuant to part 111 of the act shall institute corrective action for all releases of a contaminant from any waste management units at the facility, regardless of when the contaminant may have been placed in or released from the waste management unit.

(b) Owners or operators of facilities that are not included in subdivision (a) of this subrule and for which the owner or operator, or both, is or was subject to the interim status requirements defined in RCRA, except for facilities that have received formal written approval of the withdrawal of their EPA part A hazardous waste permit application from the director or the EPA, shall institute corrective action for all releases of hazardous waste from the facility, regardless of when the hazardous waste may have been placed in or released from the facility.

(2) Owners or operators shall implement corrective action beyond the facility boundary if the releases referenced in subrule (1) of this rule have or may have migrated, or otherwise have or may have been emitted, beyond the facility boundary, unless the owner or operator demonstrates, to the satisfaction of the director, that, despite the owner's or operator's best efforts, the owner or operator is unable to obtain the necessary permissions to undertake such actions. The owner or operator shall not be relieved of all responsibility to clean up a release that has migrated or been emitted beyond the facility boundary where off-site access is denied. On-site measures to address such releases shall be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action shall be provided.

(3) The owners or operators who are required to establish a corrective action program pursuant to part 111 of the act and these rules shall, at a minimum, do the following, as applicable:

(a) For facilities that are specified in subdivision (a) of subrule (1) of this rule, the owner or operator, or both, shall take corrective action to ensure compliance with the groundwater protection standards, and, if necessary, other applicable environmental protection standards, established by the director. The director shall specify in ~~an permit~~, operating license, postclosure operating license, consent order, or other order, pursuant to this rule and R 299.9635 and R 299.9636, schedules of compliance for corrective action and assurances of financial responsibility for completing the corrective action and other requirements, including, any of the following:

(i) A list of the hazardous wastes and hazardous constituents. The list of hazardous constituents are identified pursuant to 40 C.F.R. §264.93.

(ii) The groundwater protection standards which are expressed as concentration limits that are established pursuant to R 299.9612(1)(d) or as concentration limits established pursuant to part 31 or part 201 of the act if the limits are not less stringent than allowed pursuant to RCRA.

(iii) The environmental protection standards which are necessary for the cleanup and protection of soil, surface water, sediments, and ambient **and indoor** air that are established pursuant to part 201 of the act **on the effective date of these rules** if the limits are not less stringent than allowed pursuant to RCRA.

(iv) The compliance point or points at which the standards apply and at which monitoring shall be conducted, which for groundwater are specified pursuant to 40 C.F.R. §264.95.

(v) The compliance period, which for groundwater is specified pursuant to 40 C.F.R. §264.96.

(vi) The restoration and mitigation measures that are necessary to mitigate damage to the natural resources of the state, including wildlife, fish, wetlands, or other ecosystems.

(b) For facilities that are specified in subdivision (b) of subrule (1) of this rule, the owner or operator, or both, shall take corrective action to ensure compliance with the groundwater protection standards, and, if necessary, other applicable environmental protection standards, established by the director. The director shall specify in a consent order or other order, pursuant to this rule and R 299.9635 and R 299.9636, schedules of compliance for corrective action and assurances of financial responsibility for completing the corrective action and other requirements, including any of the following:

(i) A list of the hazardous wastes and hazardous waste constituents.

(ii) The groundwater protection standards which are expressed as concentration limits that are established pursuant to part 31 or part 201 of the act if the limits are not less stringent than allowed pursuant to RCRA.

(iii) The environmental protection standards which are necessary for the cleanup and protection of soil, surface water, sediments, and ambient **and indoor** air that are established pursuant to part 201 of the act **on the effective date of these rules** if the limits are not less stringent than allowed pursuant to RCRA.

(iv) The compliance point or points at which the standards apply and at which monitoring shall be conducted.

(v) The compliance period.

(vi) The restoration and mitigation measures that are necessary to mitigate damage to the natural resources of the state, including wildlife, fish, wetlands, or other ecosystems.

(4) The owner or operator shall implement a corrective action program that prevents contaminants, hazardous wastes, or hazardous waste constituents, as provided for in subrule (1) of this rule, from exceeding their respective protection standards or concentration limits at the compliance point by removing the contaminants, hazardous wastes, or hazardous waste constituents or treating them in place.

(5) For facilities that are conducting a groundwater compliance monitoring program at the time ~~an permit~~, operating license, postclosure operating license, consent order, or other order is issued or entered, the owner or operator shall begin groundwater corrective action within a reasonable time period after the groundwater protection standard is exceeded. The director shall specify the time period in the ~~permit~~, operating license, postclosure operating license, consent order, or other order. If ~~an permit~~, operating license, postclosure operating license, consent order, or other order includes a groundwater corrective action program in addition to a compliance groundwater monitoring program, then the operating license, postclosure operating license, consent order, or other order shall specify when the corrective action groundwater program will begin and the corrective action groundwater program shall operate in place of the compliance groundwater monitoring program.

(6) In conjunction with a groundwater corrective action program, the owner or operator shall establish and implement a groundwater monitoring program to demonstrate the effectiveness of the groundwater corrective action program. The monitoring program may be based on the requirements for a compliance groundwater monitoring program and shall be as effective as that program in determining compliance with the groundwater protection standards specified in the ~~permit~~, operating license, postclosure operating license, consent order, or other order and in determining the success of a corrective action program pursuant to the provisions of subrule (8) of this rule, where appropriate. All wells installed to monitor, evaluate, or remediate groundwater shall be constructed and abandoned in accordance with the well installation and well decommissioning procedures in ASTM standards D5092-904 (2010)e1 and D5299-992, or a plan approved by the director.

(7) If there is an exceedance of a groundwater surface water interface standard based on acute toxicity and established pursuant to part 201 and part 31 of the act, at any of the groundwater surface water interface compliance monitoring wells required by these rules and approved by the department, then the owner or operator shall immediately do all of the following:

(a) Provide the department with written notification of the exceedance within 7 days of obtaining knowledge and confirmation that the exceedance is occurring or within 30 days of the effective date of this rule, whichever is later.

(b) Within 60 days of the date on which the notice in subdivision (a) of this subrule is required, do 1 or more of the following, unless an extension of a submittal or implementation deadline is approved by the department. In reviewing extension requests, the department shall consider the progress of any corrective action to date, whether or not site conditions inhibit corrective action implementation, whether or not the extension would adversely impact surface water resources, and the nature and extent of the exceedances.

(i) Implement interim ~~actions~~ **measures** to prevent exceedances at the monitoring wells referenced in this subrule and submit to the department a proposal and schedule for completing corrective action to prevent a discharge that exceeds the standard.

(ii) Provide the department with written notification of the owner or operator's intent to propose another compliance monitoring point if one has yet not been approved by the department. The notification shall include a schedule for submission of the proposal for department approval. The

department may approve the schedule as submitted or direct reasonable modifications in the schedule. The proposal for another compliance monitoring point shall include all of the following:

(A) A demonstration that the proposed compliance monitoring points are more representative of the venting groundwater and allow a more accurate calculation of the discharge rate, in cubic feet per second, of that portion of the venting groundwater plume that exceeds, or is likely to exceed in the future, a groundwater surface water interface standard, than existing compliance monitoring wells.

(B) A demonstration that the locations where venting groundwater enters surface water have been comprehensively identified.

(C) A demonstration that the proposed compliance monitoring point allows for venting groundwater to be sampled before mixing with surface water.

(D) A demonstration that the proposed compliance monitoring point allows for reliable, representative monitoring of groundwater quality.

(E) Identification and documentation of the chemical, physical, or biological processes that result in the reduction of hazardous constituents between the original compliance monitoring wells required by these rules and the proposed compliance monitoring points.

(F) Consideration of changes in groundwater flow conditions so that samples collected from the proposed compliance monitoring point are representative of groundwater flowing to the surface water. The proposed compliance monitoring points may be located in a floodplain.

(G) Identification of any sentinel monitoring points that will be used in conjunction with the proposed compliance monitoring point to assure that any potential exceedance of an applicable water quality standard can be identified with sufficient notice to allow additional corrective action to be implemented that will prevent the exceedance. Sentinel monitoring points shall include, at a minimum, the original compliance monitoring wells required by these rules.

(iii) Provide the department with written notification of the owner or operator's intent to propose a site-specific standard under MCL 324.20120a(2). The notification shall include a schedule for submission of the proposal for department approval. The department may approve the schedule as submitted or direct reasonable modifications in the schedule.

(c) If the owner or operator does not implement an effective corrective action; submit the notices, proposals, and schedules required in subdivision (b) of this subrule; or comply with the schedules established under subdivision (b) of this subrule; and no extension was approved by the department, the owner or operator shall continue implementation of interim ~~actions~~ **measures** to prevent the exceedance until another compliance monitoring point or site-specific standard is approved by the department, or if the proposal is not approved by the department, until a different corrective action is implemented to protect the surface water. If another compliance monitoring point was approved by the department before detection of the exceedance in that compliance monitoring point, corrective action shall continue as long as there is a reasonable potential for an exceedance to occur, or until a different corrective action is implemented to protect the surface water. The owner or operator shall document the interim ~~actions~~ **measures** taken to prevent the exceedance and their effectiveness during the time that the department is reviewing a proposal. If the proposal required under paragraph (ii) of subdivision (b) of this subrule does not adequately document the interim ~~actions~~ **measures** required to satisfy this rule, it shall be considered incomplete and the department shall not make a decision on the proposal.

(8) In addition to the other requirements of this rule, the owner or operator shall conduct a corrective action program to remove or treat in place any contaminants, hazardous wastes, and hazardous waste constituents, as provided for in subrule (1) of this rule, that exceed the groundwater protection standards or other environmental protection standards that are specified by the director as follows:

(a) Between the compliance points that are established pursuant to subrule (3)(a)(iv) and (b)(iv) of this rule and the downgradient property boundary and beyond the facility boundary in accordance with subrule (2) of this rule.

(b) Corrective action measures that are undertaken pursuant to this rule shall be initiated and completed within a reasonable period of time considering the extent of contamination.

(c) Corrective action measures that are pursuant to this rule may be terminated once the environmental protection standards specified by the director in the facility ~~permit~~, operating license, postclosure operating license, consent order, or other order have been achieved for the required period.

(9) The owner or operator shall continue corrective action measures during the compliance period to the extent necessary to ensure that the environmental protection standards are not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, then corrective action shall continue for as long as necessary to achieve compliance with the environmental protection standards. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area, including the closure period, if the owner or operator can demonstrate that the environmental protection standards have been achieved for the required period.

(10) The owner or operator shall report, in writing, to the director, on the effectiveness of the corrective action program pursuant to the schedule specified in the ~~permit~~, operating license, postclosure operating license, consent order, or other order, but not less than annually.

(11) If an owner or operator determines that the corrective action program does not satisfy the requirements of these rules, he or she shall, pursuant to the ~~permit~~, operating license, postclosure operating license, consent order, or other order, submit an application for a ~~permit~~ or license modification or request a modification or termination of appropriate sections of any consent order or other order.

(12) The requirements of this rule do not apply to remediation waste management sites unless they are part of a facility subject to the ~~permitting~~ or licensing requirements under part 111 of the act and these rules because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes.

R 299.9640 Options for incinerators, cement kilns, and lightweight aggregate kilns to minimize emissions from startup, shutdown, and malfunction events.

Rule 640. (1) Owners and operators of ~~permitted~~ or licensed incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, or hydrochloric acid production furnaces may request that the director address ~~construction permit~~ or operating license conditions that minimize emissions from startup, shutdown, and malfunction events under any of the options in 40 C.F.R. §270.235(a) when requesting removal of ~~construction permit~~ or operating license conditions that are no longer applicable according to R 299.9623(2) or R 299.9808(4).

(2) Owners and operators of interim status incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, or hydrochloric acid production furnaces operating under parts 6 and 8 of these rules may control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options after conducting a comprehensive performance test and submitting to the director a notification of compliance documenting compliance with 40 C.F.R. part 63, subpart EEE:

(a) The owner or operator continues to comply with the emission standards and operating requirements of parts 6 and 8 of these rules relevant to control of emissions from startup, shutdown, and malfunction events. Those standards and requirements only apply during startup, shutdown, and malfunction events.

(b) The owner or operator is exempt from the standards of parts 6 and 8 of these rules relevant to control of emissions of toxic compounds during startup, shutdown, and malfunction events upon submission of written notification and documentation to the director that the startup, shutdown, and malfunction plan required pursuant to 40 C.F.R. §63.1206(c)(2) has been approved by the department pursuant to 40 C.F.R. §63.1206(c)(2)(ii).

(3) When an owner or operator of an interim status incinerator, cement kiln, or lightweight kiln operating under parts 6 and 8 of these rules submits an operating license application to the director, the owner or operator may request that the director control emissions from startup, shutdown, and malfunction events under subrule (1) of this rule.

(4) Hazardous waste incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, or hydrochloric acid production furnaces that become subject to the ~~permitting or~~ licensing requirements of these rules after October 12, 2005, shall control emissions of toxic compounds during startup, shutdown, and malfunction events in accordance with 40 C.F.R. §270.235(c).

(5) The provisions of 40 C.F.R. §270.235(a) and (c) are adopted by reference in R 299.11003. For the purposes of this adoption, the word "permit" shall be replaced with "operating license," and the references to "264.340(b)" shall be replaced with "R 299.9623(2)," "266.100(b)" replaced with "R 299.9808(4)," and "270.41(a)" and "270.42" replaced with "R 299.9519."

PART 7. FINANCIAL CAPABILITY

R 299.9706 Letter of credit.

Rule 706. (1) An owner or operator may satisfy the requirements of this part by obtaining an irrevocable letter of credit which conforms to the requirements of this rule and which is executed on a form approved by the director. The issuing institution shall be a bank or financial institution which has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency.

(2) The letter of credit shall include all of the following information:

(a) The site identification number.

(b) Name and address of the facility.

(c) The amount of funds assured for closure or postclosure care of the facility by the letter of credit.

(3) The letter of credit shall be irrevocable and issued for a period of at least 1 year. The letter of credit shall provide that the expiration date will be automatically extended for a period of at least 1 year unless, not less than 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days shall begin on the date when both the owner or operator and the director have received the notice, as evidenced by the return receipts.

(4) The letter of credit shall be issued in an amount at least equal to the current closure or postclosure cost estimate, or both, except as provided in R 299.9703(2).

(5) When the current closure or postclosure cost estimate, or both, increases to an amount more than the amount of the credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current closure or postclosure cost estimate and submit evidence of such increase to the director or obtain other financial assurance as specified in this part to cover the increase. When the current closure or postclosure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure or postclosure cost estimate following written approval by the director.

(6) The director may draw on the letter of credit to correct violations, complete closure, and maintain the facility pursuant to approved plans after doing both of the following:

(a) Issuing a notice of violation or other order to the owner or operation which alleges that the owner or operator has failed to perform final closure or postclosure care, or both, pursuant to the closure and postclosure plans and other ~~permit~~ **license** requirements when required.

(b) Providing the owner or operator with 7 days notice and opportunity for hearing.

(7) If the owner or operator does not establish alternate financial assurance as specified in this part and obtain written approval of such alternate assurance from the director within 90 days after receipt by both the owner or operator and the director of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, then the director shall draw on the letter of credit. The director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension, the director shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this part and obtain written approval of such assurance from the director.

(8) The director shall return the letter of credit to the issuing institution for termination when either of the following occurs:

(a) An owner or operator substitutes alternate financial assurance as specified in this part.

(b) The director releases the owner or operator from the requirements of this part pursuant to R 299.9703(5).

R 299.9708 Closure or postclosure insurance.

Rule 708. (1) An owner or operator may satisfy the requirements of R 299.9703 by obtaining closure or postclosure insurance, or both, which conforms to the requirements of this rule and by submitting both of the following to the director:

(a) A certificate of insurance which uses wording approved by the director.

(b) A certified true and complete copy of the insurance policy.

(2) An owner or operator of a new facility shall submit the certificate of insurance and insurance policy to the director not less than 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance shall be effective before this initial receipt of hazardous waste.

(3) The insurer shall satisfy all of the following requirements:

(a) The insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the state of Michigan.

(b) The insurer shall have a minimum of \$7,000,000.00 of unimpaired surplus funds.

(c) The insurer shall assume financial responsibility for the accepted risk, pursuant to the terms of the policy, using its own pool of resources that is independent, separate, and unrelated to that of the owner or operator.

(4) The closure or postclosure insurance policy shall be issued for a face amount at least equal to the current closure or postclosure cost estimate, except as provided in R 299.9703(2). Actual payments by the insurer shall not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(5) The closure insurance policy shall guarantee that funds will be available to close the facility when final closure occurs. The postclosure insurance policy shall guarantee that funds will be available to provide postclosure care of the facility when the postclosure period begins. The policy shall also guarantee that, once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the director, to such person or persons as the director specified.

(6) After beginning partial or final closure, an owner or operator or any other person authorized to perform closure or postclosure care may request reimbursements for closure or postclosure expenditures

by submitting itemized bills to the director. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure or postclosure activities, the director shall determine if the expenditures are in accordance with the closure or postclosure plan or otherwise justified, and, if so, he or she shall instruct the insurer to make reimbursement in such amounts as the director specified in writing. If the director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly more than the face amount of the policy, the director may withhold reimbursement of such amounts as he or she deems prudent until he or she determines, in accordance with R 299.9703(5), that the owner or operator is no longer required to maintain financial assurance for closure of the facility. If the director does not instruct the insurer to make such reimbursements, then the director shall provide the owner or operator with a detailed written statement of reasons.

(7) The owner or operator shall maintain the policy in full force and effect until the director consents to termination of the policy by the owner or operator as specified in subrule (12) of this rule. In addition, failure to pay the premium without substitution of alternate financial assurance as specified in this part shall constitute a significant violation of these rules and shall warrant such other remedy as the director deems necessary. Such violation will be deemed to begin upon receipt, by the director, of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(8) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer if such consent is not unreasonably refused.

(9) The policy shall provide that the insurer shall not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, then the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice, by certified mail, to the owner or operator and the director; however, the policy shall unconditionally provide for all of the following:

(a) That if the owner or operator fails to renew the policy or provide alternate financial assurance as approved by the director not less than 60 days before the expiration date of the policy, then the insurer shall immediately pay, to the director, the full amount of closure and postclosure coverage under the policy if requested, in writing, by the director before the expiration date of the policy.

(b) That cancellation, termination, or failure to renew shall not occur during the 120 days beginning with the date of receipt of the notice by both the director and the owner or operator, as evidenced by the return receipts.

(c) That cancellation, termination, or failure to renew shall not occur, and the policy shall remain in full force and effect, if, on or before the date of expiration, any of the following occurs:

- (i) The director deems the facility abandoned.
- (ii) The **operating license permit** is terminated or revoked or a new **operating license permit** is denied.
- (iii) Closure is ordered by the director, a United States district court, or other court of competent jurisdiction.

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under the bankruptcy provisions of Public Law 95-598 11 U.S.C. §§1 to 151302.

(v) The premium due is paid.

(10) The policy shall unconditionally provide that the insurer shall, after the hearing, immediately pay to the director any amount requested by the director up to the full value of the appropriate closure or

postclosure policy to correct the closure or postclosure violations following issuance of a notice of violation or other order by the director which does both of the following:

(a) Alleges that the owner or operator has failed to perform closure or postclosure care, or both, in accordance with the closure plan, postclosure plan, or other requirements of part 111 of the act, these rules, or the operating license.

(b) Provides 7 days notice and opportunity for hearing.

(11) If the current closure or postclosure cost estimate increases to an amount more than the face amount of the policy, then the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current closure or postclosure cost estimate and submit evidence of such increase to the director or obtain other financial assurance as specified in this part to cover the increase. If the current closure or postclosure cost estimate decreases, then the face amount may be reduced to the amount of the current closure or postclosure cost estimate following written approval by the director.

(12) The director shall give written consent to the owner or operator that the owner or operator may terminate the insurance policy when either of the following occurs:

(a) An owner or operator substitutes alternate financial assurance as specified in this rule.

(b) The director releases the owner or operator from the requirements of this part in accordance with R 299.9703(5).

PART 8. MANAGEMENT OF SPECIFIC HAZARDOUS WASTES, SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES, AND USED OIL

R 299.9801 Recyclable materials used in manner constituting disposal.

Rule 801. (1) The requirements of this rule apply to recyclable materials that are applied to or placed on the land in either of the following ways:

(a) Without mixing with any other substance.

(b) After mixing or combining with any other substance or substances.

(2) The materials specified in subrule (1) of this rule will be referred to throughout this rule as materials "used in a manner that constitutes disposal."

(3) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation pursuant to these rules if the recyclable materials have undergone a chemical reaction in the course of producing the product so as to become inseparable by physical means and if such products are in compliance with the applicable treatment standards specified in R 299.9311, R 299.9413, and R 299.9627, or where no treatment standards have been established, the applicable prohibition levels specified in 40 C.F.R. §268.32 or section 3004(d) of RCRA, for each recyclable material that the products **contain, and the recycler complies with 40 C.F.R. §268.7(b)(6).**

(4) An anti-skid/deicing use of slags that are generated from the high temperature metals recovery (HTMR) processing of K061, K062, and F006 in a manner that constitutes disposal is not covered by the exemption in subrule (3) of this rule and the use remains subject to regulation under part 111 of the act and these rules.

(5) Fertilizers that contain recyclable materials are not subject to regulation provided that they meet both of the following conditions:

(a) They are zinc fertilizers excluded from the definition of waste according to R 299.9204(1)(y).

(b) They meet the applicable treatment standards in 40 C.F.R. part 268, subpart D for each hazardous waste they contain.

(6) Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of parts 3 and 4 of these rules.

(7) Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated pursuant to all of the applicable provisions of parts 5, 6, and 7 of these rules.

(8) Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated pursuant to all of the applicable provisions of parts 5, 6, and 7 of these rules, except that these requirements do not apply to products that contain these recyclable materials pursuant to subrule (3) of this rule.

(9) Waste, used oil, or other material that is contaminated with a hazardous waste shall not be used for dust suppression or road treatment.

R 299.9804 Spent lead acid batteries being reclaimed.

Rule 804. (1) The requirements of this rule apply to persons who generate, collect, transport, store, or regenerate spent lead acid batteries for reclamation purposes.

(2) Persons who manage spent lead acid batteries which will be reclaimed through regeneration are not subject to parts 3 to 7 of these rules except for the requirements of R 299.9302. These persons shall also comply with the requirements of part 2 of these rules.

(3) Persons who generate, collect, or transport spent lead acid batteries which will be reclaimed by a means other than regeneration are not subject to parts 3 to 7 of these rules except for the requirements of R 299.9302. These persons shall also comply with the requirements of part 2 of these rules and 40 C.F.R. part 268.

(4) Persons who store spent lead acid batteries which will be reclaimed by a means other than regeneration but do not reclaim the batteries themselves are not subject to parts 3 to 7 of these rules except for the requirements of R 299.9302. These persons shall also comply with the requirements of part 2 of these rules and 40 C.F.R. part 268.

(5) Persons who store spent lead acid batteries which will be reclaimed by a means other than regeneration and store these batteries before reclaiming the batteries themselves are subject to all applicable requirements of R 299.9302 and parts 2, 5, 6, and 7 of these rules, except for the manifest requirements of R 299.9608.

(6) Persons who store spent lead acid batteries which will be reclaimed by a means other than regeneration and do not store these batteries before reclaiming the batteries themselves are not subject to parts 3 to 7 of these rules except for the requirements of R 299.9302. These persons shall also comply with the requirements of part 2 of these rules and 40 C.F.R. part 268.

(7) Persons who export spent lead acid batteries for reclamation through regeneration or by a means other than regeneration in a foreign country are not subject to parts 3 to 7 of these rules except for the requirements of R 299.9302 and the applicable requirements either in R 299.9312 or 40 C.F.R §§262.53, 262.56(a)(1) to (4) and (6) and (b), and 262.57. These persons shall also comply with the requirements of part 2 of these rules and either of the following requirements:

(a) R 299.9312.

(b) All of the following requirements:

(i) The requirements applicable to a primary exporter in 40 C.F.R. §§262.53, 262.56(a)(1) to (4) and (6) and (b), and 262.57.

(ii) Export the batteries only upon consent of the receiving country and in conformance with the EPA acknowledgement of consent.

(iii) Provide a copy of the EPA acknowledgement of consent of the shipment to the transporter transporting the shipment for export.

(8) Persons who transport spent lead acid batteries in U.S. which are to be exported for reclamation through regeneration or by a means other than regeneration in a foreign country are not subject to parts 4 to 7 of these rules. These persons shall comply with either of the following requirements:

- (a) The applicable requirements of R 299.9312.**
- (b) All of the following requirements:**
 - (i) The person may not accept a shipment if the person knows the shipment does not conform to the EPA acknowledgement of consent.**
 - (ii) Ensure that a copy of the EPA acknowledgement of consent accompanies the shipment.**
 - (iii) Ensure that the shipment is delivered to the facility designated by the person initiating the shipment.**

(79) Instead of managing spent lead acid batteries in accordance with this rule, persons may manage spent lead acid batteries as universal wastes in accordance with the requirements of R 299.9228.

(810) The provisions of 40 C.F.R. §§262.53, 262.56(a)(1) to (4) and (6) and (b), and 262.57, and part 268 are adopted by reference in R 299.11003. **For the purposes of 40 C.F.R. part 266, subpart H and §270.66, the word "director" shall replace the words "regional administrator." For the purposes of these adoptions, the term "R 299.9308(1)" shall replace the term "40 C.F.R. 262.41," the term "R 299.9309(2)" shall replace the term "40 C.F.R. 262.54," the term "R 299.9304" shall replace the term "40 C.F.R. 262, subpart B," the term "R 299.9310" shall replace the term "40 C.F.R. 262, subpart F," the term "R 299.9804" shall replace the term "40 C.F.R. 266, subpart G," and the term "R 299.9229" shall replace the term "40 C.F.R. part 273."**

R 299.9808 Management of hazardous waste burned in boilers and industrial furnaces.

Rule 808. (1) The requirements of this rule apply to hazardous waste that is burned or processed in a boiler or industrial furnace irrespective of the purpose of the burning or processing, except as noted in subrules (2) to (4) of this rule. For the purposes of this rule, the term "burn" means burning hazardous waste for energy recovery or destruction or processing hazardous waste for materials recovery or as an ingredient.

- (2) The following hazardous wastes and facilities are not subject to this rule:
 - (a) Used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in R 299.9212. The used oil is subject to regulation pursuant to R 299.9809 to R 299.9816.
 - (b) Gas recovered from hazardous waste or solid waste landfills when the gas is burned for energy recovery.
 - (c) Hazardous wastes that are exempt from regulation pursuant to R 299.9204 and R 299.9206(3)(c) to (f), and hazardous wastes that are subject to the special requirements for conditionally exempt small quantity generators pursuant to R 299.9205.
 - (d) Coke ovens, if the only hazardous waste burned in an oven is K087.
- (3) The following owners or operators are not subject to regulation under this rule, except as noted:
 - (a) An owner or operator of a smelting, melting, and refining furnace, including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, that processes hazardous waste solely for metal recovery is exempt from regulation under this rule, except for the requirements of subrules (6) and (8) of this rule, if the owner or operator is in compliance with the requirements of 40 C.F.R. §266.100(d)(1) to (3). The exemption does not apply to cement kilns, aggregate kilns, or halogen acid furnaces that process hazardous waste solely for metals recovery.
 - (b) An owner or operator of a smelting, melting, and refining furnace, including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, that processes hazardous

waste for recovery of economically significant amounts of the precious metals gold, silver, platinum, palladium, iridium, osmium, rhodium, or ruthenium, or any combination of the metals, is exempt from regulation under this rule, except for the requirements of subrule (8) of this rule, if the owner or operator is in compliance with the requirements of 40 C.F.R. §266.100(g)(1) to (3).

(c) An owner or operator of a facility that burns, in an on-site boiler or industrial furnace that is exempt from regulation pursuant to the small quantity provisions of 40 C.F.R. §266.108, hazardous waste that the facility has generated is exempt from regulation under parts 5 to 7 of these rules for storage units that store mixtures of hazardous waste and the primary fuel to the boiler or industrial furnace in tanks that feed the fuel mixture directly to the burner. The storage of hazardous waste before mixing it with the primary fuel is subject to subrule (6) of this rule.

(d) An owner or operator of a facility that burns hazardous waste in an on-site boiler or industrial furnace, if all of the small quantity exemption criteria outlined in 40 C.F.R. §266.108 are met.

(4) Except as noted in this subrule, part 8 of these rules does not apply to owners and operators of a new cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that becomes subject to the ~~permit~~ or license requirements of these rules after October 12, 2005, or to owners or operators of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace if the owner or operator demonstrates compliance with the air emission standards and limitations in 40 C.F.R. part 63, subpart EEE by conducting a comprehensive performance test and submitting to the director a notification of compliance under 40 C.F.R. §§63.1207(j) and 63.1210(d) which documents compliance with the requirements of 40 C.F.R. part 63, subpart EEE. Nevertheless, after this compliance demonstration is made, the operating license conditions that are based on the standards of part 8 of these rules shall continue to be in effect until they are removed from the operating license or the operating license is terminated or revoked, unless the operating license expressly provides otherwise. The director may apply this subrule and subrule (5) of this rule, on a case-by-case basis, for collecting information pursuant to R 299.9504(18) and (20) and R 299.9521(3)(b) and (c).

(5) The maximum achievable control technology standards of 40 C.F.R. part 63, subpart EEE, do not supersede any of the following requirements:

(a) R 299.9601, R 299.9605 to R 299.9610, R 299.9612, R 299.9613, R 299.9630, R 299.9631, R 299.9808(8) and part 7 of these rules and 40 C.F.R. part 265, subparts A to D, F, G, BB, and CC, and §§266.102(e)(11), 266.103(l), 266.111, 266.112, except 266.112(a) and (c), as applicable.

(b) The particulate matter standard of 40 C.F.R. §266.105 if the owner or operator elects to comply with the alternative to the particulate matter standard under 40 C.F.R. §§63.1216(e) and 63.1217(e).

(c) The following requirements remain in effect for startup, shutdown, and malfunction events even if a person elects to comply with 40 C.F.R. §270.35(a)(1)(i) to minimize emissions of toxic compounds from these events, or for source areas if a person elects to comply with 40 C.F.R. §§266.105 to 266.107 and the associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals:

(i) The requirements of 40 C.F.R. §266.102(e)(1) which require that a boiler or industrial furnace operate pursuant to the operating requirements specified in the operating license at all times that hazardous waste is in the unit.

(ii) The requirements of 40 C.F.R. §266.102(e)(2)(iii) which require compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes.

(d) The following requirements remain in effect for owners or operators of a boiler or hydrochloric acid production furnace that is an area source under 40 C.F.R. §63.2 if the owner or operator does not elect to comply with the emission standards under 40 C.F.R. §§63.1216, 63.1217, and 63.1218 for particulate matter, semivolatile and low volatile metals, and total chlorine:

- (i) The requirements of 40 C.F.R. §266.105.
 - (ii) The requirements of 40 C.F.R. §266.106.
 - (iii) The requirements of 40 C.F.R. §266.107.
- (6) A generator and a transporter of hazardous waste that is burned in a boiler or industrial furnace shall comply with parts 3 and 4 of these rules, respectively.
- (7) An owner or operator of a facility that stores hazardous waste that is burned in a boiler or industrial furnace shall comply with the applicable requirements of parts 5 to 7 of these rules. The requirements of parts 5 to 7 of these rules shall apply to the storage by the burner and to storage facilities operated by intermediaries, including processors, blenders, distributors, between the generator and the burner.
- (8) An owner or operator of a boiler or an industrial furnace that burns hazardous waste shall comply with the applicable requirements of parts 5 to 7 of these rules and 40 C.F.R. part 266, subpart H and appendices I to XIII; except §§266.100(a) and (b), 266.101, 266.102(a), and 266.112(a) and (c); and §270.66.
- (9) A residue derived from the burning or processing of hazardous waste in a boiler or industrial furnace is not excluded from the definition of hazardous waste under R 299.9204(2)(d), (h), and (j), unless the device and the owner or operator are in compliance with all of the following requirements:
- (a) The device meets the following criteria:
 - (i) If the device is a boiler, it shall burn not less than 50% coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal.
 - (ii) If the device is an industrial furnace subject to R 299.9204(2)(h), it shall process not less than 50%, by weight, normal, nonhazardous raw materials.
 - (iii) If the device is a cement kiln, it shall process not less than 50%, by weight, normal cement production raw materials.
 - (b) The owner or operator demonstrates, in writing, to the director's satisfaction, that the hazardous waste does not significantly affect the residue by demonstrating conformance with the criteria outlined in 40 C.F.R. §266.112(b)(1) and (2).
 - (c) Records sufficient to document compliance with this subrule shall be retained until closure of the boiler or industrial furnace unit. At a minimum, the following information shall be included in the records, as applicable:
 - (i) The levels of constituents in 40 C.F.R. part 261, appendix VIII, that are present in waste-derived residues.
 - (ii) If the waste-derived residue is compared with normal residue under this subrule, then all of the following information shall be documented in the records:
 - (A) The levels of constituents in 40 C.F.R. part 261, appendix VIII, that are present in normal residues.
 - (B) Data and information, including analyses of samples as necessary, that were obtained to determine if changes in raw materials or fuels would reduce the concentration of toxic constituents of concern in the normal residue.
- (10) The provisions of 40 C.F.R. parts 265, subparts A to D, F, G, BB, and CC, 266, subpart H and appendices I to XIII; except §§266.100(a) and (b), 266.101, 266.102(a), and 266.112(a) and (c); §270.66, and §270.235(a)(1)(i) are adopted by reference in R 299.11003. For the purposes of 40 C.F.R. part 266, subpart H and §270.66, the word "director" shall replace the words "regional administrator."

R 299.9821 Military munitions; waste munitions standards.

Rule 821. The treatment and disposal of military munitions which are considered a hazardous waste under these rules are subject to all of the applicable ~~permitting~~, licensing, procedural, and technical requirements of these rules.

R 299.9822 Low-level mixed waste storage and treatment; conditional exemption, eligibility, and standards.

Rule 822. (1) Persons storing and treating LLMW shall comply with these rules unless otherwise specified in this rule.

(2) LLMW is exempt from the definition of hazardous waste under the storage and treatment conditional exemption if both of the following requirements are met:

(a) The LLMW meets the eligibility requirements of subrule (3) of this rule.

(b) Persons storing and treating the LLMW comply with subrule (4) of this rule.

(3) LLMW is eligible for the LLMW storage and treatment conditional exemption if it is generated and managed under a single NRC or NRC agreement state license. A facility that receives LLMW generated at a facility with a different NRC or NRC agreement state license number is subject to the ~~construction permit~~ and operating license requirements under parts 5 and 6 of these rules and is ineligible for the conditional exemption in subrule (2) of this rule. NARM waste is also ineligible for the conditional exemption in subrule (2) of this rule.

(4) In order to qualify for and maintain the LLMW storage and treatment conditional exemption, persons storing and treating LLMW shall comply with all of the following requirements:

(a) Provide to the department by certified delivery written notification that the conditional exemption is being claimed. The notification shall be provided to the department within 90 days of the effective date of this rule or within 90 days of when a storage or treatment unit is first used to store or treat conditionally exempt LLMW. The dated notification shall include all of the following information:

(i) the applicant's name.

(ii) The applicant's address.

(iii) The applicant's site identification number.

(iv) The applicant's NRC or NRC agreement state license number.

(v) The hazardous waste number(s) of the waste for which the exemption is being sought.

(vi) The storage unit(s) and treatment unit(s) for which the exemption is being sought.

(vii) A statement that the applicant meets the conditions of this rule.

(viii) The signature of an authorized representative certifying that the information in the notification is true, accurate, and complete.

(b) Store the LLMW in tanks or containers in compliance with the requirements of the NRC or NRC agreement state license that apply to the proper storage of LLRW, not including those requirements that relate solely to recordkeeping.

(c) Store the LLMW in tanks or containers in compliance with the chemical compatibility requirements for tanks or containers in part 6 of these rules.

(d) Certify that facility personnel who manage stored conditionally exempt LLMW are trained in a manner that ensures that the conditionally exempt waste is safely managed and includes training in chemical waste management and hazardous materials incidents response that meets the personnel training standards of 40 C.F.R. §265.16(a)(3).

(e) Conduct an inventory of the stored conditionally exempt LLMW at least annually and inspect the waste at least quarterly for compliance with this rule and R 299.9823, as applicable.

(f) Maintain an accurate emergency plan and provide the plan to all local authorities who may have to respond to a fire, explosion, or release of hazardous waste or hazardous constituents. The plan shall include all of the following information:

- (i) A description of the emergency response arrangements with local authorities.
- (ii) A description of the evacuation plans.
- (iii) A list of the names, addresses, and telephone numbers of all facility personnel qualified to work with local authorities as emergency coordinators.
- (iv) A list of the emergency equipment.
- (g) Only treat the LLMW at the facility within a tank or container pursuant to the terms of the NRC or NRC agreement state license. Treatment that cannot be conducted in a tank or container without an operating license under these rules, such as incineration, is not allowed under the conditional exemption of subrule (2) of this rule.

(5) Failure to comply with the requirements of subrule (4) of this rule shall result in the automatic loss of the conditional exemption of subrule (2) of this rule. If the exemption is lost, the person handling the LLMW shall comply with all of the following requirements:

(a) Immediately manage the waste associated with the failure as a hazardous waste. The associated storage or treatment unit(s) shall become subject to the hazardous waste tank and container storage and treatment requirements of these rules, as applicable.

(b) Provide a written report by certified delivery to the department and the NRC, or the oversight agency in the NRC agreement state. The report shall be submitted within 30 days of learning of the failure to comply. The report shall be signed by an authorized representative certifying that the information provided in the report is true, accurate, and complete. The report shall include all of the following information:

- (i) The specific conditions that were not met.
- (ii) The waste name associated with the LLMW.
- (iii) The hazardous waste number associated with the LLMW.
- (iv) The quantity of LLMW involved.
- (v) The storage or treatment location at the facility.
- (vi) The date or dates upon which the failure to meet the conditions occurred.

(6) If the failure to meet any of the LLMW storage and treatment conditional exemption conditions may endanger human health or the environment, oral notification to the department shall be made within 24 hours and follow-up written notification shall be provided within 5 days. Failures that may endanger human health or the environment include, but are not limited to, the discharge of a cercla reportable quantity, leaking or exploding tanks or containers, detection of radionuclides above background, or detection of hazardous constituents in the leachate collection system of a storage area. Failures that may endanger human health or the environment require execution of emergency plans.

(7) The department may terminate a LLMW storage and treatment conditional exemption, or require additional conditions to claim an exemption, for serious or repeated noncompliance with any of the requirements of this rule and R 299.9823.

(8) Persons that have lost their LLMW storage and treatment conditional exemption may regain their exemption by complying with all of the following requirements:

- (a) Complying with subrule (4) of this rule.
- (b) Providing to the department by certified delivery written notification that the exemption is being reclaimed. The notification shall be signed by an authorized representative certifying that the information contained in the notice is true, accurate, and complete. The notification shall contain all of the following information:
 - (i) An explanation of the circumstances surrounding each failure to comply.
 - (ii) A certification that each failure has been corrected and that all of the conditions required for the exemption have been met as of the specified date.

(iii) A description of the plans that have been implemented, listing the specific steps taken to ensure that all of the conditions required for the exemption will be met in the future.

(iv) Any other information that should be considered by the department in reviewing the notice to reclaim the exemption.

(9) The department may terminate a reclaimed LLMW storage and treatment conditional exemption if the department finds that the claim is inappropriate based on factors including, but not limited to, any of the following:

(a) Not correcting the problem which resulted in loss of the exemption.

(b) Providing an unsatisfactory explanation of the circumstances surrounding the failure to comply with the requirements for the exemption.

(c) Not implementing a plan with steps to prevent another failure to comply with the requirements for the exemption.

(10) When reviewing a request to reclaim the LLMW storage and treatment conditional exemption under subrule (18) of this rule, the department may add additional conditions to the LLMW storage and treatment conditional exemption to ensure that the waste management during the storage and treatment of the waste will protect human health and the environment.

(11) In addition to the records required by a NRC or NRC agreement state license, all of the following records shall be kept:

(a) Initial notification records, return receipts, reports regarding failure to meet the exemption conditions, and all records supporting any reclamation of an exemption.

(b) Records of the LLMW annual inventories and quarterly inspections.

(c) Certification that facility personnel who manage stored or treated LLMW are trained in the safe management of the waste, including training in chemical waste management and hazardous materials incidents response.

(d) The emergency plan specified in subrule (4)(f) of this rule.

(12) Records concerning notifications, personnel training, and emergency plans shall be maintained at the facility for as long as the LLMW storage and treatment conditional exemption is claimed and for 3 years thereafter, or pursuant to NRC regulations under 10 C.F.R. part 20 or equivalent NRC agreement state regulations, whichever is longer.

Records concerning annual inventories and quarterly inspections shall be maintained at the facility for 3 years after the waste is sent for disposal, or pursuant to NRC regulations under 10 C.F.R. part 20 or equivalent NRC agreement state regulations, whichever is longer.

(13) The LLMW storage and treatment conditional exemption does not apply in the following situations:

(a) Once the LLMW has met the requirements of the NRC or NRC agreement state license for decay-in-storage and can be disposed of as nonradioactive waste. On that date, the waste is subject to regulation as a hazardous waste under these rules and the time period for accumulation of hazardous waste specified in part 3 of these rules begins.

(b) Once the LLMW, which has been generated and stored or treated under a single NRC or NRC agreement state license number, is removed from storage. However, the LLMW may qualify for the transportation and disposal conditional exemption in R 299.9823.

(14) Facilities that have been used to store only LLMW before the effective date of this rule, and after that date, store only LLMW which becomes exempt under this rule or R 299.9823, are not subject to the closure requirements of part 6 of these rules. Storage and treatment units, or portions thereof, that have been used to store both LLMW and non-mixed hazardous waste before the effective date of this rule, or are used to store both wastes after that date, remain subject to the closure requirements with respect to the non-mixed hazardous waste.

(15) The provisions of 10 C.F.R. part 20 and 40 C.F.R. §265.16(a)(3) are adopted by reference in R 299.11003.

PART 9. HAZARDOUS WASTE ~~SERVICE FUND~~ EMERGENCY

R 299.9904—~~Certification of performance~~ **Rescinded.**

~~Rule 904. Before payment is made from the hazardous waste service fund, the on-scene coordinator shall certify all of the following:~~

- ~~(a) That equipment used and work performed as stated on the contractor's invoice is accurate.~~
- ~~(b) That the charges accurately reflect the cost of the equipment used and work performed by the contractor.~~
- ~~(c) Whether or not a hazardous waste was generated as a result of the hazardous waste emergency for which a manifest was issued and whether or not the manifest copy was returned to indicate that the hazardous waste was properly delivered to the treatment, storage, or disposal facility.~~

R 299.9905—~~Documentation of expenditures~~ **Rescinded.**

~~Rule 905. The director shall keep records detailing expenditures from the hazardous waste service fund. Each expenditure shall be attributable to a specific hazardous waste emergency.~~

R 299.9906—~~Expenditure of funds~~ **Rescinded.**

~~Rule 906. The hazardous waste service fund shall be used only for hazardous waste emergencies determined under R 299.9901.~~

PART 10. AVAILABILITY OF REFERENCED MATERIALS

R 299.11001 Publications; adoption by reference.

Rule 1001. (1) The following ASTM standards are adopted by reference in these rules:

- (a) D 93-~~79~~**11** (\$~~35~~**46**).
- (b) ~~D 93-80~~ (\$35).
- ~~(c)~~ D 421-**85 (2007)** (\$~~29~~**35**).
- ~~(dc)~~ D 422-63 (**2007**) (\$340).
- ~~(ed)~~ D 698-912 (\$~~30~~**46**).
- ~~(fe)~~ D 1557-912 (\$~~30~~**46**).
- ~~(gf)~~ D 1586-~~67~~**11** (\$340).
- ~~(hg)~~ D 1946-~~82~~**90 (2011)** (\$340).
- ~~(ih)~~ D 2216-**10** (\$~~25~~**40**).
- ~~(j)~~ ~~D 2267-88~~ (\$30).
- ~~(k)~~ ~~D 2382-83~~ (\$30).
- ~~(li)~~ D 2434-68 (**2006**) (\$~~34~~**0**).
- ~~(mj)~~ D 2487-~~69~~**11 (reapproved 1979)** (\$~~35~~**46**).
- ~~(nk)~~ D 2879-~~92~~**10** (\$340).
- ~~(ol)~~ D 2922-~~78~~**04e1** (\$~~30~~**48**).
- ~~(pm)~~ D 3278-~~78~~**96 (2011)** (\$340).
- ~~(qn)~~ D 4318-~~94~~**10** (\$~~35~~**46**).
- ~~(o)~~ **D 4809-09a** (\$40).
- ~~(rp)~~ D 5084-~~90~~**10** (\$~~30~~**57**).
- ~~(sq)~~ D 5092- **904 (2010)e1** (\$~~25~~**46**).

(~~tr~~) D 5299-929 (2005) (\$~~3546~~).

(s) **D 5580-02 (2007) (\$40).**

(~~ut~~) D 6450-9905 (2010) (\$340).

(~~vu~~) E 168-8806 (\$~~3546~~).

(~~wv~~) E 169-8704 (2009) (\$340).

(~~xw~~) E 260-8596 (2011) (\$~~3546~~).

(~~yx~~) E 926-8894, Test Method C (\$~~3048~~).

(2) The standards listed in subrule (1) of this rule are available from the ~~American Society for Testing and Materials International~~, Sales Services, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959. The costs identified in subrule (1) reflect the costs at the time these rules were promulgated. The standards adopted in subrule (1) of this rule are available for inspection and distribution at the Lansing office of the department; Library, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, (3403T), Washington, DC 20460, libraryhq@epa.gov; or the National Archives and Records Administration, 202-741-6030, http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(3) The publication entitled "APTI Course 415: Control of Gaseous Emissions," EPA Publication EPA-450/2-81-005, PB91101709, December 1981, is adopted by reference in these rules. The publication is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, 703-605-6000 or 800-553-6847, or the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, 202-512-1800, for \$81, the cost at the time these rules were promulgated. The publication is available for inspection and distribution at the Lansing office of the department; the Library, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, (3403T), Washington, DC 20460, libraryhq@epa.gov; or the National Archives and Records Administration, 202-741-6030, http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(4) The publication entitled "U.S. EPA, Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised," October 1992, EPA Publication No. EPA-454/R-92-019, PB93219095, is adopted by reference in these rules. The publication is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, 703-605-0000 or 800-553-6847, or the U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 919-541-7645, for \$39.50, the cost at the time these rules were promulgated. The publication adopted in this subrule is available for inspection and distribution at the Lansing office of the department.

(5) The publication entitled "API Publication 2517, Third Edition, Evaporative Loss From External Floating Roof Tanks," February 1989, is adopted by reference in these rules. The publication is available from the American Petroleum Institute, 1220 L Street, NW, Washington, DC, 20005, for \$100, the cost at the time these rules were promulgated. The publication adopted in this subrule is available for inspection and distribution at the Lansing office of the department.

(6) The publication entitled "Method 1664, Revision A, n-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated n-Hexane Extractable Material (SGT-HEM; Non-Polar Material) by Extraction and Gravimetry," PB99-121949, is adopted by reference in these rules. The publication is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, 703-605-0000 or 800-553-6847, or the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, 202-512-1800, for \$33-~~50~~, the cost at the time these rules were promulgated. The publication is available for inspection and distribution at the Lansing office of the department; the Library, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, (3403T), Washington, DC 20460, libraryhq@epa.gov; or the National Archives and Records Administration, 202-741-6030, http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(7) The publications entitled "OECD Green List of Wastes" (revised May 1994), "Amber List of Wastes" (revised May 1993), and "Red List of Wastes" (revised May 1993) as set fourth in Appendix 3, Appendix 4, and Appendix 5, respectively, to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations) are adopted by reference in these rules. The publications are available for purchase from the Organisation for Economic Co-operation and Development, Environment Directorate, 2 rue Andre Pascal, 75775 Paris Cedex 16, France, at cost. The publications are available for inspection and distribution at the Lansing office of the department.

R 299.11002 NFPA standard; adoption by reference.

Rule 1002. (1) The NFPA standards no. 30 (~~1996~~**2012**) and 704 (~~2001~~**2**) are adopted by reference in these rules.

(2) The standard listed in subrule (1) of this rule is available from the National Fire Protection Association, 1 Batterymarch Drive, Quincy, Massachusetts 02269-9101, for ~~\$4150.50~~ and ~~\$329~~, respectively, the cost at the time these rules were promulgated. The standard adopted in this rule is available for inspection and distribution at the Lansing office of the department.

R 299.11003 Adoption by reference of federal regulations.

Rule 1003. (1) The following federal regulations in 40 C.F.R. are adopted by reference in these rules:

- (a) 40 C.F.R. part 60, appendices A and B.
- (b) 40 C.F.R. part 63, subparts EEE and LLL.
- (c) 40 C.F.R. part 124.
- (d) 40 C.F.R. part 144.
- (e) 40 C.F.R. part 145.
- (f) 40 C.F.R. part 146.
- (g) 40 C.F.R. part 147.
- (h) 40 C.F.R. §§260.20, 260.21, 260.22, 260.31, 260.32, and 260.33.
- (i) 40 C.F.R. §§261.10, 261.11, 261.21(a)(3), 261.32(a), for K181 listing only, (c), and (d), 261.35(2)(b)(iii), 261.38, ~~except 261.38(a) and (b)~~, 261.39(a)(5), and 261.41.
- (j) 40 C.F.R. part 261, appendix I, appendix VII, and appendix VIII.
- (k) 40 C.F.R. §§262.20, 262.21, **262.23(c) to (f)**, 262.27, 262.34(m)(1) and (2), 262.40(a), (c), and (d), 262.41(a)(1)-(8), and 262.43, and 40 C.F.R. part 262, subparts E and H and the appendix to the part, except 40 C.F.R. §§262.54, 262.55, and 262.80, **and part 262, subpart K, except §§262.201 and 262.202 and the references to performance track members.**
- (l) 40 C.F.R. part 263, subpart B.
- (m) 40 C.F.R. part 264, subpart B, subpart C, subpart D, subpart F, subpart G, subpart I, subpart J, subpart K, subpart L, subpart M, subpart N, subpart O, subpart X, subpart W, subpart AA, subpart BB, subpart CC, subpart EE, except 40 C.F.R. §§264.15(b)(5), 264.94(a)(2) and (3), 264.94(b) and (c), 264.100, 264.101, 264.112(d)(1), 264.115, 264.120, 264.221(f), 264.251(f), 264.301(f), 264.340(a) to (d), 264.344(a)(2) and (b), and 264.1200.
- (n) 40 C.F.R. §§264.1(j)(1) to (13), 264.71(a) and (b), 264.72, 264.73, 264.75(a)-(j), 264.94(a)(2), table 1, 264.141, 264.142, 264.144, 264.147(c), (d), and (f), 264.151(g), and 264.554, except 264.554(l).
- (o) 40 C.F.R. part 264, appendix I and appendix IX.
- (p) 40 C.F.R. part 265, except subparts E, H, DD, and O, and 40 C.F.R. §§265.15(b)(5), 265.112(d)(1), 265.115, and 265.120.
- (q) 40 C.F.R. part 265, appendices I and VI.

(r) 40 C.F.R. part 266, subpart H, except §§266.100(a) and (b), 266.101, 266.102(a), and 266.112(a) and (c).

(s) 40 C.F.R. §§266.203 and 266.205(a), (b), (d), and (e).

(t) 40 C.F.R. part 266, appendices I through XIII.

(u) 40 C.F.R. part 268, including appendices II through XI.

(v) 40 C.F.R. §§270.10(e), (g), (k), and (l)(1); 270.11; 270.13; 270.14(b) and (d); 270.15; 270.16; 270.17; 270.18; 270.19(c); 270.20; 270.21; 270.22; 270.23; 270.24; 270.25; 270.26; 270.27; 270.30, except §270.30(l)(1) and (8); 270.31; 270.33; 270.41(a), except §270.41(a)(3); 270.62(a) to (d); 270.64; 270.66; 270.70; 270.71; 270.73; and 40 C.F.R. part 270, subpart H, except §§270.80, 270.85, 270.90, 270.155, 270.160, 270.190, 270.195, and 270.235(a) and (c).

(w) 40 C.F.R. part 273, subpart B, subpart C, subpart D, and subpart E, except §§273.10, 273.18(b), 273.30, 273.38(b), 273.50, 273.53, and 273.60.

(x) 40 C.F.R. §§279.22, except §279.22(a); 279.23, 279.24, 279.33, 279.41 to 279.43, 279.45, except §279.45(b); 279.46, 279.51, 279.52, 279.54, except §279.54(a); 279.55 to 279.58, 279.61, 279.62, 279.64, except §279.64(a); 279.65, 279.66, 279.73, and 279.75.

(y) 40 C.F.R. part 280.

(z) 40 C.F.R. part 761.

(2) Federal hazardous waste regulations are contained in 40 C.F.R. part 60 (appendices), 40 C.F.R. part 63, 40 C.F.R. parts 100 to 135, 40 C.F.R. 136 to 149, 40 C.F.R. parts 260 to 265, 40 C.F.R. parts 266 to 299, and 40 C.F.R. part 700 to 789, July 1, 2006~~11~~ editions. These editions are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, 202-512-1800, for \$5863, \$540, \$415, \$671, \$506, \$506, and \$671, respectively, the costs at the time these rules were promulgated. ~~The provisions of 40 C.F.R. Parts 260, 261, 262, 264, 265, 266, 268, and 270 were amended in the Federal Register on July 14, 2006. The provisions of 40 C.F.R. Part 261 were amended in the Federal Register on July 28, 2006.~~ Reprints of these federal registers are available from Solid Waste Information, U.S. EPA, 26 West St. Clair Street, Cincinnati, Ohio 45268, at no cost. The sections adopted by reference in this rule are available for inspection and distribution at the Lansing office of the department.

R 299.11004 Federal regulations in 10 C.F.R., 29 C.F.R., 33 C.F.R., and 49 C.F.R.; adoption by reference.

Rule 1004. (1) The federal regulations in 10 C.F.R. part 20, 10 C.F.R. part 61, and 10 C.F.R. part 71 are adopted by reference in these rules.

(2) The federal regulations in 29 C.F.R. §§1910.120(q) and 1910.132 to 1910.138 and 29 C.F.R. part 1910, subpart L, are adopted by reference in these rules.

(3) The federal regulations in 33 C.F.R. §153.203 are adopted by reference in these rules.

(4) The following federal regulations in 49 C.F.R. are adopted by reference in these rules:

(a) 49 C.F.R. part 107.

(b) 49 C.F.R. part 130.

(c) 49 C.F.R. part 171.

(d) 49 C.F.R. part 172.

(e) 49 C.F.R. part 173.

(f) 49 C.F.R. part 174.

(g) 49 C.F.R. part 175.

(h) 49 C.F.R. part 176.

(i) 49 C.F.R. part 177.

(j) 49 C.F.R. part 178.

- (k) 49 C.F.R. part 179.
- (l) 49 C.F.R. part 180.
- (m) 49 C.F.R. §390.21.

(5) Federal nuclear regulatory commission regulations are contained in 10 C.F.R. parts 1 to 50 and 10 C.F.R. parts 51 to 199, January 1, 2006~~11~~ editions. Federal labor regulations are contained in 29 C.F.R. parts 1900 to 1910 and ~~29 C.F.R. parts 1927 to end~~, July 1, 2006~~11~~ editions. Federal navigation regulations are contained in 33 C.F.R. parts 125 to 199, July 1, 2006~~11~~ edition. Federal transportation regulations are contained in 49 C.F.R. parts 100 to 185~~77~~, **49 C.F.R. parts 178 to 199**, and 49 C.F.R. parts 300 to 399, October 1, 2006~~11~~ editions. These editions are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, for \$6~~47~~, \$58~~64~~, \$61~~7~~, \$62~~4~~, \$61~~70~~, \$63~~70~~, and \$32~~7~~ respectively, the costs at the time these rules were promulgated. The sections adopted in this rule are available for inspection and distribution at the Lansing office of the department.

R 299.11005 Test methods for evaluating solid waste; adoption by reference.

Rule 1005. (1) Test methods in the publication entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, Third Edition, November 1986, and its updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIA (April 1998), and ~~IIIB (November 2004)~~, **IVA (February 2007), and IVB (February 2007)** are adopted by reference in these rules.

(2) The documents listed in subrule (1) of this rule are available online from the United States EPA, Office of Solid Waste and Emergency Response, <http://www.epa.gov/epaoswer/hazwaste/test/main.htm>, at no cost. The EPA Publication SW-846, Third Edition, and updates I, II, IIA, IIB, III, and IIIA, PB2002105715, and update IIIB, PB2003100855, are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, (703) 605-6000 or (800) 553-6847, for \$397 and \$47.50, respectively, the costs at the time these rules were promulgated. The documents adopted in this rule are available for inspection and distribution at the Lansing office of the department, the Library, United States EPA, 401 M Street, SW, Washington, DC 20460, and the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC 20002.

R 299.11009 Availability of documents for inspection and distribution.

Rule 1009. The standards and publications adopted by reference in R 299.11001 to R 299.11008 are available for inspection and distribution from the Michigan Department of Environmental Quality, **Office of Waste and Hazardous Materials Management and Radiological Protection Division**, P.O. Box 30241, Lansing, Michigan 48909-7741. The department will charge the prices listed for each standard or publication in R 299.11001 to R 299.11008 plus \$20.00 for handling plus shipping.

PART 11. CERTIFIED LOCAL HEALTH DEPARTMENTS

R 299.11101–~~Certification eligibility~~ **Rescinded.**

~~Rule 1101. The director shall consider an application for certification from any local health department which shall agree to perform, at a minimum, those services specified in R 299.11104(1) and (2) and which demonstrates, to the director's satisfaction, that the services to be provided by the local health department under part 111 of the act warrant the assignment of at least a full-time equivalent position of professional staff.~~

R 299.11102–~~Certification procedures~~ **Rescinded.**

~~Rule 1102. (1) Not later than 90 days after the effective date of these rules, or by July 1 of each year thereafter, an uncertified city, county, or district department of health desiring to be considered for certification shall file an application on a form provided by the director.~~

~~(2) An application shall be accompanied by a document containing the proposed methods, budget, and staffing to be used in carrying out the performance requirements of R 299.11104(1) and (2) and any services the local health department elects to carry out which are listed in R 299.11104(3). The document shall include the qualifications of designated authorized representatives to participate in the program and all other pertinent information that may be deemed necessary by the director.~~

~~(3) The director, or his or her designee, shall negotiate performance contracts, as specified in subrule (4) of this rule, with local health departments which have applied under subrules (1) and (2) of this rule, in the order they appear on the priority list determined under R 299.11106, until all funds are committed or all needs are met. The director shall certify those local health departments for which funds are available when agreement on the performance contract is reached.~~

~~(4) The application and accompanying documents shall be used by the director as the basis for negotiation of a performance contract with the local health department. The performance contract shall cover a 1-year period and shall specify the services to be carried out by the local health department and the funding to be provided by the state. The contract shall be terminated if certification is rescinded.~~

~~(5) Health department certification shall be reviewed each year by the director. Updated information relative to certification shall be provided by the certified health department as appropriate or upon request of the director.~~

R 299.11103–Certification rescinding procedures Rescinded.

~~Rule 1103. Certification may be rescinded by the director as provided in section 45(1) of part 111 of the act.~~

R 299.11104–Performance requirements Rescinded.

~~Rule 1104. (1) A health department certified under the provisions of these rules shall protect the public health and the natural resources of the state by assisting the director in the administration of part 111 of the act. The certified health department shall provide professional environmental health services to evaluate compliance with the technical and administrative provisions of part 111 of the act and these rules:~~

~~(2) A certified health department shall carry out 1 or more of the following hazardous waste investigative and surveillance activities:~~

~~(a) Conduct inspections of treatment, storage, or disposal facilities and file written reports as required by section 44 of part 111 of the act.~~

~~(b) When investigating waste management practices, review and inspect manifests and records carried by hazardous waste transporters or maintained by generators and treatment, storage, or disposal facility owner or operators.~~

~~(c) Provide surveillance of generator waste accumulation sites.~~

~~(d) Investigate complaints of violations of part 111 of the act and these rules and report findings to the director.~~

~~(e) Assist in the review of hazardous waste transporter business license applications and participate in inspections of stationary facilities and methods of operation under R 299.9407.~~

~~(f) Provide information to the director and the Michigan department of public health to assist in evaluating the existence of an imminent or substantial hazard to the public health or natural resources and in issuing orders for immediate corrective action.~~

~~(g) Perform surveillance and investigative activities to evaluate compliance with part 111 of the act~~

and these rules and participate in enforcement actions by the director.

(3) A certified health department may be authorized to provide any of the following additional services:

(a) Encourage methods of hazardous waste management which are environmentally sound, which maximize the use of valuable resources, and which encourage resource conservation, including source separation and waste reduction.

(b) Provide input on the development and implementation of the hazardous waste management plan through the county representative on the state hazardous waste management planning committee.

(c) Assist the director in the development of rules to implement the hazardous waste management plan.

(d) Provide assistance to the site review board in carrying out its responsibilities as provided in section 17(6) of part 111 of the act.

(e) Upon receipt of a construction permit application, assist the director, as needed, to obtain information for the proper notification of all parties required by section 19(1)(a) of part 111 of the act.

(f) Provide a location where the complete construction permit application may be reviewed by the public.

(g) Participate in public hearings relative to an application for a construction permit.

(h) Review applications for construction permits and prepare a written report and recommendation to the director.

(i) Monitor construction of disposal facilities to ascertain conformity to the construction permit.

(j) Assist in review of applications for operating licenses, review engineering certifications, and make recommendations, in writing, to the director for or against the granting of operating licenses.

(k) Oversee closure and postclosure monitoring and surveillance activities.

(l) Conduct investigations to determine if hazardous wastes are managed according to the act and these rules.

(m) Provide services designated by the director at treatment, storage, or disposal facilities.

R 299.11105—General performance requirements **Rescinded.**

Rule 1105. (1) Authorized representatives of a certified health department shall, when appropriate, attend hazardous waste courses, seminars, and in-service training programs. They shall keep abreast of developments in hazardous waste management through review of periodicals.

(2) The certified health department shall provide reports of its participation in the state's hazardous waste management program, as requested by the director, and shall make program records available for review by the director.

R 299.11106—Funding priority **Rescinded.**

Rule 1106. (1) Health departments applying for funding during the first year after promulgation of these rules shall be ranked, for purposes of funding priority, in order according to the following formula:

$$R = (100F) + G + T + (P - 10,000)$$

F = Number of treatment, storage, or disposal facilities located within the jurisdiction of the local health department which have received, or are required to obtain, construction permits or operating licenses under part 111 of the act.

G = Number of generators of hazardous waste whose amount exceeds 100 kilograms per month.

T = Number of transporters located within the jurisdiction of the local health department which have received transporter business licenses under part 111 of the act.

~~P = Population of the certified health department jurisdiction.~~

~~(2) The priority listing for funding in subsequent years shall be prepared in the same manner as for the first year. Changes in local health department jurisdictions applying, the number of treatment, storage, and disposal facilities located within the jurisdictions, and populations might result in changes to the priority list. However, continuation of funding to previously certified health departments which have performed satisfactorily shall take precedence over the priority list if conflicts arise.~~

~~R 299.11107—Substantiation of expenditures of grant funds; required records; redistribution of unobligated grant funds; certification of local health departments which cannot be funded because of insufficient appropriations or low priority~~ **Rescinded.**

~~Rule 1107. (1) To substantiate appropriate expenditures of grant funds and to provide documentation of the level of work effort for future performance contract negotiations, the certified health department shall keep records of receipts of grant funds, costs attributable to its operation of the hazardous waste management programs, and expenditure of grant funds. Such records shall be available to state auditors during regular business hours without advance notice.~~

~~(2) Any unobligated grant funds shall be made available to other certified health departments. Such redistribution shall be proportioned to maximize health department performance as determined by the director.~~

~~(3) An eligible, uncertified, local health department which cannot be funded because of either insufficient appropriations or low priority under R 299.11106 may be certified by the director. Details of the services to be carried out by such a certified, but unfunded, local health department shall be specified, in writing, by the director.~~

NOTICE OF PUBLIC HEARING

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF WASTE MANAGEMENT AND RADIOLOGICAL PROTECTION**

NOTICE OF PUBLIC HEARING

The Michigan Department of Environmental Quality (MDEQ), Office of Waste Management and Radiological Protection (OWMRP), will conduct a public hearing on proposed administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); R 299.9101 *et. seq.* These rules are necessary for the MDEQ to maintain its federal authorization from the United States Environmental Protection Agency to administer the state's Hazardous Waste Management Program, in lieu of the federal Hazardous Waste Management Program, under the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984; to improve the overall quality of the rules, both in terms of clarification of existing requirements and areas of program coverage; and to reduce some of the regulatory burdens on the regulated community by providing streamlined and flexible requirements. These rules also include revisions based on MDEQ and public recommendations in such areas as: identification and listing, manifesting, records availability, environmental protection standards, changes to reflect recent statutory revisions, certified local health departments, and hazardous waste service fund.

The public hearing will be held on May 23, 2013, at 10:00 a.m., in the ConCon Conference Room, Constitution Hall, Atrium South, 525 West Allegan Street, Lansing, Michigan 48933.

Copies of the proposed rules (ORR 2012-108 EQ) can be downloaded from the Internet through the Office of Regulatory Reinvention at <http://www.michigan.gov/orr>. Copies of the rules may also be obtained by contacting the Lansing office at:

Office of Waste Management and Radiological Protection
Michigan Department of Environmental Quality
P.O. Box 30241
Lansing, Michigan 48909-7741
Phone: 517-373-9548
Fax: 517-373-4797
E-Mail: blayerr@michigan.gov

All interested persons are invited to attend and present their views. It is requested that all statements be submitted in writing for the hearing record. Anyone unable to attend may submit comments in writing to the address above. Written comments must be received by May 24, 2013.

Persons needing accommodations for effective participation in the meeting should contact the OWMRP at 517-373-9548 one week in advance to request mobility, visual, hearing, or other assistance.

This notice of public hearing is given in accordance with Sections 41 and 42 of Michigan's Administrative Procedures Act, 1969 PA 306, as amended, being Sections 24.241 and 24.242 of the

Michigan Compiled Laws. Administration of the rules is by authority conferred on the Director of the MDEQ by Sections 15a, 18, 23, 27, 28, 30, 32, 37, 40, 41, and 45 of Part 111 of Act 451, being Sections 324.11115a, 324.11118, 324.11123, 324.11127, 324.11128, 324.11130, 324.11132, 324.11137, 324.11140, 324.11141, and 324.11145 of the Michigan Compiled Laws and Executive Order 1995-18 as amended by Executive Order 2011-1. These rules will become effective seven (7) days after filing with the Secretary of State.

Elizabeth M. Browne, Chief
OWMRP

**CERTIFICATE OF NEED
REVIEW STANDARDS**

MCL 24.208 states in part:

Sec. 8. The State Office of Administrative Hearings and Rules shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(k) All of the items in section 7(l) after final approval by the certificate of need commission or the statewide health coordinating council under section 22215 or 22217 of the public health code, 1978 PA 368, MCL 333.22215 and 333.2217.

MCL 24.207 states in part:

Sec. 7. “Rule” means an agency regulation, statement, standard, policy, ruling, or instruction of general applicability that implements or applies law enforced or administered by the agency, or that prescribes the organization, procedure, or practice of the agency, including the amendment, suspension, or rescission of the law enforced or administered by the agency. Rule does not include any of the following:

* * *

(l) All of the following, after final approval by the certificate of need commission or the statewide health coordinating council under section 22215 or 22217 of the public health code, 1978 PA 368, MCL 333.22215 and 333.22217:

- (i) The designation, deletion, or revision of covered medical equipment and covered clinical services.*
- (ii) Certificate of need review standards*
- (iii) Data reporting requirements and criteria for determining health facility viability.*
- (iv) Standards used by the department of community health in designating a regional certificate of need review agency.*
- (v) The modification of the 100 licensed bed limitation for short-term nursing care programs set forth in section 22210 of the public health code, 1978 PA 368, MCL 333.22210.*

CERTIFICATE OF NEED REVIEW STANDARDS

**CERTIFICATE OF NEED (CON) REVIEW STANDARDS
SYNOPSIS FOR PUBLICATION IN THE MICHIGAN REGISTER
PURSUANT TO THE ADMINISTRATIVE PROCEDURES ACT, 1969 PA 306, MCL
24.208(1)(k)**

BONE MARROW TRANSPLANTATION (BMT) SERVICES

Final Approval by the CON Commission 12/13/12 and Effective 3/22/13

The language changes include the following:

1. Section 1: Modified for consistency with other CON review standards.
2. Section 2: Definitions used only in certain section(s) have been moved to the applicable section to make it easier for the reader to identify the defined terms, and other definitions have been updated. Specifically:
 - “Acquisition of a BMT service” - has been moved to Section 4
 - “Initiate a BMT service” - has been moved to Section 3
3. Section 6: Updated Medicaid participation section consistent with other CON review standards.
4. Section 7: Divided project delivery requirements into distinct groups: quality assurance, access to care, and monitoring and reporting.
5. Appendix A: Health Service Areas moved to an Appendix consistent with other CON review standards.
6. Other technical changes.

Complete Standards

A complete set of the approved language can be found at www.michigan.gov/con. A hard copy may be obtained, for a fee, by sending a written request to:

Michigan Department of Community Health
Health Policy and Access Division
Health Policy Section
Capitol View Building
201 Townsend
Lansing, MI 48913

(517) 335-6708

Email address: MDCH-ConWebTeam@michigan.gov

CERTIFICATE OF NEED REVIEW STANDARDS

**CERTIFICATE OF NEED (CON) REVIEW STANDARDS
SYNOPSIS FOR PUBLICATION IN THE MICHIGAN REGISTER
PURSUANT TO THE ADMINISTRATIVE PROCEDURES ACT, 1969 PA 306, MCL
24.208(1)(k)**

PSYCHIATRIC BEDS AND SERVICES

Final Approval by the CON Commission 12/13/12 and Effective 3/22/13

The language changes include the following:

1. Section 1: Modified for consistency with other CON review standards.
2. Section 2: Definitions have been modified and new definitions have been added as follows:
 - "Flex bed" is defined as an existing adult psychiatric bed converted to a child/adolescent psychiatric bed in an existing child/adolescent psychiatric service to accommodate during peak periods and meet patient demand.
 - "Relocate existing licensed inpatient psychiatric beds" means a change in the location of existing inpatient psychiatric beds from the existing licensed psychiatric hospital site to a different existing licensed psychiatric hospital site within the same planning area. This definition does not apply to projects involving replacement beds in a psychiatric hospital or unit governed by Section 7 of these standards.
3. Section 3: The bed need methodology was run using the base year of 2010 and a planning year of 2015. (The bed need numbers were given immediate effect.)
4. Section 4: Updated consistent with other standards and current practice. The bed need numbers will continue to be posted on the web site as part of the Psychiatric bed inventory, and the appendix in the standards will be eliminated.
5. Section 7: Modified for consistency with other CON review standards.
6. Section 8: Added requirements to allow for relocation of existing licensed inpatient psychiatric beds consistent with other standards.
7. Section 9:
 - Under subsection (2), defined calculation for average occupancy rate and modified the time period from 24 months to 12 months.
 - Under subsection (3), modified the time period from 24 months to 12 months and added a calculation for high occupancy for facilities with flex beds.
 - Added requirements under subsection (10) for a facility receiving licensed inpatient psychiatric beds under relocation (Section 8) consistent with other standards.
8. Section 10: Added new section for flex beds. This will allow for a facility with an existing adult psychiatric service and an existing child/adolescent psychiatric service to convert adult psychiatric beds to child/adolescent psychiatric beds to accommodate during peak periods and meet patient demand.
 - The existing adult psychiatric service/unit shall not become non-compliant with the minimum size requirements within section 6(4).
 - The applicant shall meet all applicable sections of the standards.

- The facility shall be in compliance and meet all design standards of the most recent Minimum Design Standards for Health Care Facilities in Michigan.
 - The applicant shall convert the beds back to adult inpatient psychiatric beds if the bed has not been used as a flex bed serving a child/adolescent patient for a continuous 12-month period or if the CON application is withdrawn.
9. Section 14: Divided requirements into distinct groups consistent with other standards: quality assurance, access to care, and monitoring and reporting.
 - Under subsection (4), added the calculation for average occupancy.
 10. Updated/eliminated Appendices as applicable.
 11. Other technical changes.

Complete Standards

A complete set of the approved language can be found at www.michigan.gov/con. A hard copy may be obtained, for a fee, by sending a written request to:

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MICHIGAN ADMINISTRATIVE CODE TABLE
(2013 SESSION)

MCL 24.208 states in part:

“Sec. 8. (1) The Office of Regulatory Reform shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(i) Other official information considered necessary or appropriate by the Office of Regulatory Reform.”

The following table cites administrative rules promulgated during the year 2000, and indicates the effect of these rules on the Michigan Administrative Code (1979 ed.).

MICHIGAN ADMINISTRATIVE CODE TABLE
(2013 RULE FILINGS)

R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue
29.2901	A	5	205.1205	R	6	205.1332	R	6
29.2902	A	5	205.1208	R	6	205.1333	R	6
29.2903	A	5	205.1210	R	6	205.1335	R	6
29.2904	A	5	205.1215	R	6	205.1340	R	6
29.2905	A	5	205.1220	R	6	205.1342	R	6
29.2906	A	5	205.1222	R	6	205.1345	R	6
29.2907	A	5	205.1225	R	6	205.1348	R	6
29.2908	A	5	205.1228	R	6	209.1	*	5
29.2909	A	5	205.1230	R	6	209.31	*	5
29.2910	A	5	205.1235	R	6	285.138.1	R	5
29.2911	A	5	205.1240	R	6	299.3301	R	2
29.2912	A	5	205.1245	R	6	299.3302	R	2
29.2913	A	5	205.1247	R	6	299.3303	R	2
29.2914	A	5	205.1249	R	6	299.3304	R	2
29.2915	A	5	205.1250	R	6	299.3305	R	2
29.2916	A	5	205.1252	R	6	299.3306	R	2
29.2917	A	5	205.1255	R	6	299.3307	R	2
29.2918	A	5	205.1257	R	6	299.3308	R	2
29.2919	A	5	205.1260	R	6	299.3309	R	2
29.2920	A	5	205.1264	R	6	299.3310	R	2
29.2921	A	5	205.1270	R	6	299.3311	R	2
29.2922	A	5	205.1275	R	6	299.3312	R	2
29.2923	A	5	205.1278	R	6	299.3313	R	2
29.2924	A	5	205.1280	R	6	299.3314	R	2
29.2925	A	5	205.1281	R	6	299.3315	R	2
29.2926	A	5	205.1283	R	6	299.3316	R	2
205.1101	R	6	205.1285	R	6	299.3317	R	2
205.1111	R	6	205.1288	R	6	299.3318	R	2
205.1115	R	6	205.1290	R	6	299.3319	R	2
205.1120	R	6	205.1301	R	6	299.5105	R	2
205.1125	R	6	205.1303	R	6	299.5107	R	2
205.1130	R	6	205.1305	R	6	299.5109	R	2
205.1135	R	6	205.1307	R	6	299.5111	R	2
205.1140	R	6	205.1312	R	6	299.5113	R	2
205.1145	R	6	205.1313	R	6	299.5117	R	2
205.1150	R	6	205.1315	R	6	299.5401	R	2
205.1155	R	6	205.1317	R	6	299.5403	R	2
205.1201	R	6	205.1320	R	6	299.5405	R	2
205.1202	R	6	205.1330	R	6	299.5407	R	2

(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)

R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue
299.5409	R	2	325.50306	R	7	325.50345	R	7
299.5411	R	2	325.50307	R	7	325.50346	R	7
299.5413	R	2	325.50308	R	7	325.50347	R	7
299.5415	R	2	325.50309	R	7	325.50348	R	7
299.5530	R	2	325.50310	R	7	325.51101	*	6
299.5532	R	2	325.50311	R	7	325.51105	*	6
299.5534	R	2	325.50312	R	7	325.51108	*	6
299.5536	R	2	325.50313	R	7	325.51101a	A	6
299.5538	R	2	325.50314	R	7	325.51190	*	7
299.5540	R	2	325.50315	R	7	325.51143	R	7
299.5732	R	2	325.50316	R	7	325.60151	*	6
299.5742	R	2	325.50317	R	7	325.60154	*	6
299.5901	R	2	325.50318	R	7	325.60155	*	6
299.5903	R	2	325.50319	R	7	325.60156	*	6
299.5905	R	2	325.50320	R	7	325.60157	*	6
299.5907	R	2	325.50321	R	7	325.60158	*	6
299.5909	R	2	325.50322	R	7	325.60159	*	6
299.5911	R	2	325.50323	R	7	325.60160	*	6
299.5913	R	2	325.50324	R	7	325.60161	*	6
299.5915	R	2	325.50325	R	7	325.60151a	A	6
299.5917	R	2	325.50326	R	7	336.1310	*	6
299.5919	R	2	325.50327	R	7	336.1330	R	6
324.1501	R	2	325.50328	R	7	338.7	*	6
324.1502	R	2	325.50329	R	7	338.108	R	6
324.1503	R	2	325.50330	R	7	338.3201	R	5
324.1504	R	2	325.50331	R	7	338.3202	R	5
324.1505	R	2	325.50332	R	7	338.3204	R	5
324.1506	R	2	325.50333	R	7	338.3206	R	5
324.1507	R	2	325.50334	R	7	338.3208	R	5
324.1508	R	2	325.50335	R	7	338.3218	R	5
324.1509	R	2	325.50336	R	7	338.3219	R	5
324.1509a	R	2	325.50337	R	7	338.3220	R	5
324.1510	R	2	325.50338	R	7	338.3221	R	5
324.1511	R	2	325.50339	R	7	338.3231	R	5
325.50301	*	7	325.50340	R	7	338.3232	R	5
325.50303	*	7	325.50341	R	7	338.3233	R	5
325.50304	*	7	325.50342	R	7	338.3234	R	5
325.50302	R	7	325.50343	R	7	338.3235	R	5
325.50305	R	7	325.50344	R	7	338.3236	R	5

(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)

R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue
338.3238	R	5	338.3314	R	5	340.1124	R	6
338.3239	R	5	338.3317	R	5	400.400	R	6
338.3241	R	5	338.3321	R	5	400.410	R	6
338.3242	R	5	338.3324	R	5	400.411	R	6
338.3243	R	5	338.3327	R	5	408.48	*	5
338.3251	R	5	338.3331	R	5	408.59	*	5
338.3252	R	5	338.3332	R	5	408.10413	R	1
338.3253	R	5	338.3335	R	5	408.10421	*	1
338.3254	R	5	338.3341	R	5	408.10509	*	1
338.3255	A	5	338.3345	R	5	408.10541	*	1
338.3256	A	5	338.3451	R	5	408.10570	*	1
338.3257	R	5	338.3455	R	5	408.10579	*	1
338.3258	R	5	338.3456	R	5	408.10580	*	1
338.3259	R	5	338.3461	R	5	408.10582	*	1
338.3261	R	5	338.3463	R	5	408.10590	*	1
338.3262	R	5	338.3464	R	5	408.10761	R	1
338.3263	R	5	338.3465	R	5	408.10763	R	1
338.3264	R	5	338.3466	R	5	408.10765	*	1
338.3265	R	5	338.23030	R	6	408.10801	*	1
338.3266	R	5	339.22501	R	5	408.10807	*	1
338.3267	R	5	339.22503	R	5	408.10823	*	1
338.3268	R	5	339.22505	R	5	408.10914	*	1
338.3269	R	5	339.22507	R	5	408.10925	*	1
338.3270	R	5	339.22509	R	5	408.10999	*	1
338.3281	R	5	339.22511	R	5	408.11432	*	6
338.3282	R	5	339.22513	R	5	408.11431	R	6
338.3283	R	5	339.22515	R	5	408.11434	R	6
338.3284	R	5	339.22517	R	5	408.11724	*	6
338.3291	R	5	339.22519	R	5	408.11725	*	6
338.3292	R	5	339.22521	R	5	408.12216	*	7
338.3295	R	5	339.22523	R	5	408.12217	*	7
338.3301	R	5	339.22525	R	5	408.12218	*	7
338.3302	R	5	339.22527	R	5	408.12220	*	7
338.3303	R	5	339.22529	R	5	408.12242	*	7
338.3304	R	5	339.23101	*	5	408.12202	A	7
338.3307	R	5	339.23102	*	5	408.12231	R	7
338.3311	R	5	340.1121	*	6	408.13811	*	7
338.3312	R	5	340.1122	*	6	408.13812	*	7
338.3313	R	5	340.1123	R	6	408.13822	*	7

(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)

R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue
408.13847	*	7	408.40128	*	6	408.40821	*	7
408.13865	*	7	408.40130	*	6	408.40822	*	7
408.13871	*	7	408.40131	*	6	408.40831	*	7
408.13881	*	7	408.40132	*	6	408.40833	*	7
408.13802	A	7	408.40133	*	6	408.40834	*	7
408.14246	*	6	408.40134	*	6	408.40836	*	7
408.14263	*	6	408.40133	R	6	408.40837	*	7
408.14267	*	6	408.40125	R	6	408.40840	*	7
408.14269	*	6	408.40126	R	6	408.40841	*	7
408.14273	*	6	408.40617	*	6	408.40932	*	6
408.14231	R	6	408.40621	*	6	408.40933	*	6
408.16511	*	6	408.40622	*	6	408.40941	*	6
408.16528	*	6	408.40623	*	6	408.40851	*	6
408.17125	R	6	408.40624	*	6	408.40946	R	6
408.30001	*	6	408.40625	*	6	408.40952	R	6
408.30007	*	6	408.40626	*	6	408.41111	*	7
408.30013	*	6	408.40631	*	6	408.41122	*	7
408.30016	*	6	408.40634	*	6	408.41123	*	7
408.30019	*	6	408.40635	*	6	408.41124	*	7
408.30022	*	6	408.40627	R	6	408.41126	*	7
408.30025	*	6	408.40632	R	6	408.41132	*	7
408.30028	*	6	408.40641	R	6	408.41133	*	7
408.30031	*	6	408.40709	*	6	408.41140	*	7
408.30034	*	6	408.40711	*	6	408.41102	R	7
408.30037	*	6	408.40712	*	6	408.41115	R	7
408.30040	*	6	408.40721	*	6	408.41125	R	7
408.30043	*	6	408.40722	*	6	408.41130	R	7
408.30046	*	6	408.40743	*	6	408.41131	R	7
408.30049	*	6	408.40744	*	6	408.41210	*	7
408.30052	*	6	408.40746	*	6	408.41211	*	7
408.30055	*	6	408.40751	*	6	408.41215	*	7
408.30002	A	6	408.40761	*	6	408.41217	*	7
408.40102	*	6	408.40714	R	6	408.41221	*	7
408.40114	*	6	408.40729	R	6	408.41222	*	7
408.40116	*	6	408.40742	R	6	408.41224	*	7
408.40119	*	6	408.40810	*	7	408.41225	*	7
408.40121	*	6	408.40818	*	7	408.41226	*	7
408.40122	*	6	408.40819	*	7	408.41227	*	7
408.40127	*	6	408.40820	*	7	408.41231	*	7

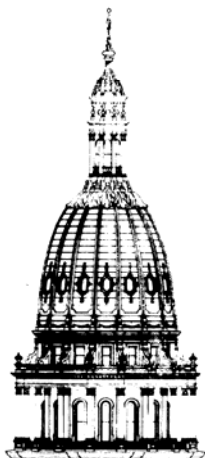
(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)

R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue
408.41232	*	7	408.41952	*	7	408.42520	*	1
408.41233	*	7	408.41953	*	7	408.42521	*	1
408.41234	*	7	408.41954	*	7	408.42522	*	1
408.41235	*	7	408.41957	*	7	408.42524	*	1
408.41236	*	7	408.41959	*	7	408.42525	*	1
408.41237	*	7	408.41964	*	7	408.42526	*	1
408.41243	*	7	408.41977	*	7	408.42527	*	1
408.41245	*	7	408.41980	*	7	408.42528	*	1
408.41253	*	7	408.41902	A	7	408.42531	*	1
408.41254	*	7	408.41931	R	7	408.42532	*	1
408.41255	*	7	408.41956	R	7	408.42533	*	1
408.41256	*	7	408.41970	R	7	408.42534	R	1
408.41261	*	7	408.41971	R	7	408.42535	R	1
408.41264	*	7	408.41974	R	7	408.42602	*	1
408.41228	R	7	408.41975	R	7	408.42644	*	1
408.41244	R	7	408.41979	R	7	408.42732	*	7
408.41246	R	7	408.42031	*	6	408.42733	*	7
408.41262	R	7	408.42034	*	6	408.42741	*	7
408.41263	R	7	408.42041	*	6	408.42743	*	7
408.41610	*	1	408.42043	*	6	408.42755	*	7
408.41627	*	1	408.42045	*	6	408.42759	*	7
408.41633	*	1	408.42046	*	6	408.42799	*	7
408.41658	*	1	408.42047	*	6	408.42756	R	7
408.41719	*	1	408.42131	R	1	408.43101	R	7
408.41725	*	1	408.42145	R	1	408.43103	R	7
408.41728	*	1	408.42149	*	1	408.43104	R	7
408.41802	*	7	408.42156	*	1	408.43105	R	7
408.41841	*	7	408.42157	*	1	408.43106	R	7
408.41852	*	7	408.42159	*	1	408.43107	R	7
408.41872	*	7	408.42160	R	1	408.43109	R	7
408.41884	*	7	408.42402	*	1	408.43111	R	7
408.41842	R	7	408.42403	*	1	408.43112	R	7
408.41850	R	7	408.42404	*	1	408.43113	R	7
408.41932	*	7	408.42405	*	1	408.43114	R	7
408.41934	*	7	408.42406	*	1	408.43121	R	7
408.41935	*	7	408.42407	*	1	408.43122	R	7
408.41943	*	7	408.42502	*	1	408.43123	R	7
408.41945	*	7	408.42503	*	1	408.43124	R	7
408.41949	*	7	408.42518	*	1	408.43125	R	7

(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)

R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue	R Number	Action	2013 MR Issue
408.43126	R	7	491.170	R	3	792.10261	A	6
408.43127	R	7	491.175	R	3	792.10263	A	6
408.43131	R	7	491.180	R	3	792.10265	A	6
408.43132	R	7	491.185	R	3	792.10267	A	6
408.43133	R	7	491.190	R	3	792.10269	A	6
408.43134	R	7	491.195	R	3	792.10271	A	6
408.43141	R	7	491.197	R	3	792.10273	A	6
408.43142	R	7	550.402	A	6	792.10275	A	6
408.43145	R	7	550.403	A	6	792.10277	A	6
408.43146	R	7	550.404	A	6	792.10279	A	6
408.43151	R	7	792.10201	A	6	792.10281	A	6
408.43152	R	7	792.10203	A	6	792.10283	A	6
408.43153	R	7	792.10205	A	6	792.10285	A	6
408.43154	R	7	792.10207	A	6	792.10287	A	6
408.43155	R	7	792.10209	A	6	792.10289	A	6
408.43156	R	7	792.10211	A	6			
408.43157	R	7	792.10213	A	6			
408.43158	R	7	792.10215	A	6			
408.43161	R	7	792.10217	A	6			
408.43162	R	7	792.10219	A	6			
436.1335	R	5	792.10221	A	6			
484.71	*	6	792.10223	A	6			
484.72	*	6	792.10225	A	6			
484.73	*	6	792.10227	A	6			
484.74	*	6	792.10229	A	6			
484.75	*	6	792.10231	A	6			
491.101	R	3	792.10233	A	6			
491.110	R	3	792.10237	A	6			
491.115	R	3	792.10239	A	6			
491.120	R	3	792.10241	A	6			
491.125	R	3	792.10243	A	6			
491.130	R	3	792.10245	A	6			
491.135	R	3	792.10247	A	6			
491.140	R	3	792.10249	A	6			
491.145	R	3	792.10251	A	6			
491.150	R	3	792.10253	A	6			
491.155	R	3	792.10255	A	6			
491.160	R	3	792.10257	A	6			
491.165	R	3	792.10259	A	6			

(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)



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**ADMINISTRATIVE RULES
ENROLLED SENATE AND HOUSE BILLS
SIGNED INTO LAW OR VETOED
(2012 SESSION)**

Mich. Const. Art. IV, §33 provides: “Every bill passed by the legislature shall be presented to the governor before it becomes law, and the governor shall have 14 days measured in hours and minutes from the time of presentation in which to consider it. If he approves, he shall within that time sign and file it with the secretary of state and it shall become law . . . If he does not approve, and the legislature has within that time finally adjourned the session at which the bill was passed, it shall not become law. If he disapproves . . . he shall return it within such 14-day period with his objections, to the house in which it originated.”

Mich. Const. Art. IV, §27, further provides: “No act shall take effect until the expiration of 90 days from the end of the session at which it was passed, but the legislature may give immediate effect to acts by a two-thirds vote of the members elected to and serving in each house.”

MCL 24.208 states in part:

“Sec. 8. (1) The Office of Regulatory Reform shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(b) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills signed into law by the governor during the calendar year and the corresponding public act numbers.

(c) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills vetoed by the governor during the calendar year.”

2013 Michigan Public Acts Table

Legislative Service Bureau
Legal Division, Statutory Compiling and Law Publications Unit
124 W. Allegan, Lansing, MI 48909

April 18, 2013
Through PA 15 of 2013

PA No.	ENROLLED		I.E.* Yes/No	Governor Approved	Filed Date	Effective Date	SUBJECT
	HB	SB					
1	4153		Yes	3/12	3/12	3/12/13	Sales tax ; collections; retroactive effective date for regulations on prepaid sales tax on gasoline; provide for. (Rep. M. Shirkey)
2		044	Yes	3/12	3/12	6/1/13	Criminal procedure ; sex offender registration; placement on the public registry; remove certain exceptions. (Sen. R. Jones)
3		060	Yes	3/12	3/12	3/12/13	Weapons ; licensing; definition of federally licensed firearms dealer; modify. (Sen. M. Green)
4		061	Yes	3/18	3/18	3/18/13 #	Insurance ; health care corporations; merger of health care corporation with a nonprofit mutual disability insurer; allow, and provide procedures, prescribe requirements on rating and certain contract provisions, and establish requirements for a health endowment fund corporation. (Sen. J. Hune)
5		062	Yes	3/18	3/18	3/18/13 #	Insurance ; health; regulations applicable to nonprofit mutual disability insurer; revise to accommodate merger with nonprofit health care corporation and prescribe requirements on rating and certain contract provisions. (Sen. V. Smith)
6		0234	Yes	3/20	3/20	3/20/13 #	Vehicles ; fund-raising registration plates; fund-raising plate for ducks unlimited; provide for. (Sen. R. Richardville)
7	4337		Yes	3/20	3/20	3/20/13 #	Vehicles ; fund-raising registration plates; distribution of proceeds from sales of ducks unlimited fund-raising plates; provide for. (Rep. D. Zorn)
8		048	Yes	3/26	3/26	3/26/13	Animals ; other; exemption from large carnivore act for certain businesses; expand to exempt businesses that allow patrons to come into contact with bears less than 36 weeks of age or bears that weigh 90 pounds or less and make other general revisions. (Sen. T. Casperson)

* - I.E. means Legislature voted to give the Act immediate effect.

** - Act takes effect on the 91st day after sine die adjournment of the Legislature.

*** - See Act for applicable effective date.

+ - Line item veto.

++ - Pocket veto.

- Tie bar.

PA No.	ENROLLED		I.E.* Yes/No	Governor Approved	Filed Date	Effective Date	SUBJECT
	HB	SB					
9		0233	Yes	3/27	3/27	3/27/13	Appropriations; supplemental ; various state departments and agencies; provide appropriations. (Sen. D. Booher)
10		0252	Yes	3/27	3/27	3/27/13	Watercraft; marinas ; marina dredging loan origination program; establish. (Sen. J. Brandenburg)
11	4398		Yes	3/27	3/27	3/27/13	Watercraft; marinas ; dredging material from Great Lakes bottomlands determined to be largely sand; revise permit fee. (Rep. A. Price)
12	4399		Yes	3/27	3/27	3/27/13	Natural resources; Great Lakes ; expedited conditional permit process; allow for emergencies. (Rep. A. Pscholka)
13	4400		Yes	3/27	3/27	3/27/13	Watercraft; marinas ; dredging material from inland lakes and streams determined to be largely sand; revise fee. (Rep. P. Pettalia)
14		019	Yes	4/16	4/16	4/16/13	Financial institutions; mortgage brokers and lenders ; appointments to the mortgage industry advisory board; modify. (Sen. D. Booher)
15		065	Yes	4/16	4/16	4/16/13	Individual income tax; collections ; withholding requirement for certain members of a flow-through entity; clarify. (Sen. J. Brandenburg)

* - I.E. means Legislature voted to give the Act immediate effect.

** - Act takes effect on the 91st day after sine die adjournment of the Legislature.

*** - See Act for applicable effective date.

+ - Line item veto.

++ - Pocket veto.

- Tie bar.